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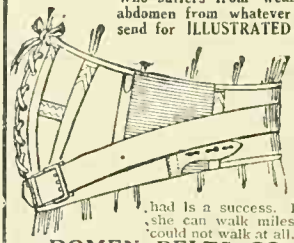

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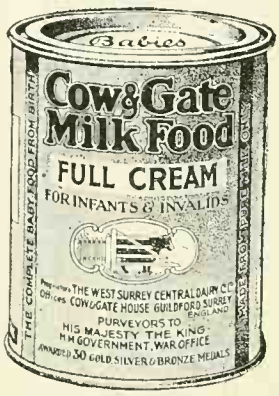
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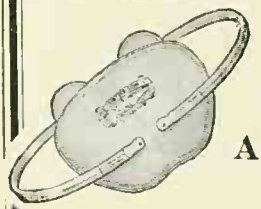

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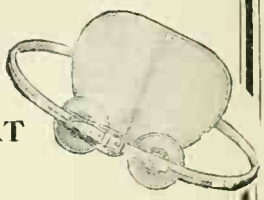

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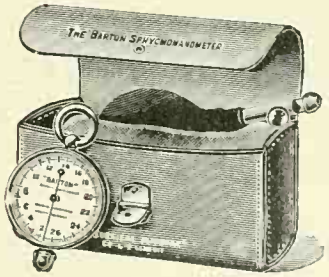

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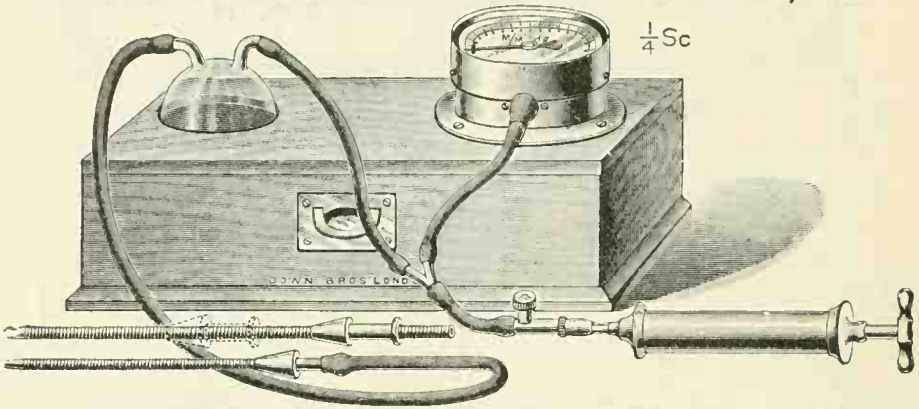

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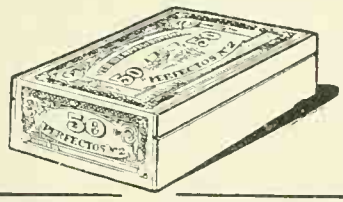

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Maximum food value in minimum bulk. Indicated in :—**Influenza, Pneumonia, Fevers, Gastric & Duodenal Ulcers, Toxæmia, Vomiting, Asthenic Conditions.**

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Protein ...	18·56%
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Carbohydrates & Non. Nitro. Ext. Matters	67·81%
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Ash ...	18·80%
Moisture...	23·28%
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67½ grammes (2·37 oz.) of Bovo-Lactin combined with 385½ grammes (13·63 oz.) of the finest chocolate powder.

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Quinine Phosphate	1½
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Nux Vomica Alkaloids equal to Strychnine Phosphate	$\frac{1}{16}$
'Bynin,' Liquid Malt	½oz.

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The possibilities of Kaolin—china clay—in the treatment of *all forms of intestinal toxæmia* has received much attention of late.

Koalin exerts two important actions:

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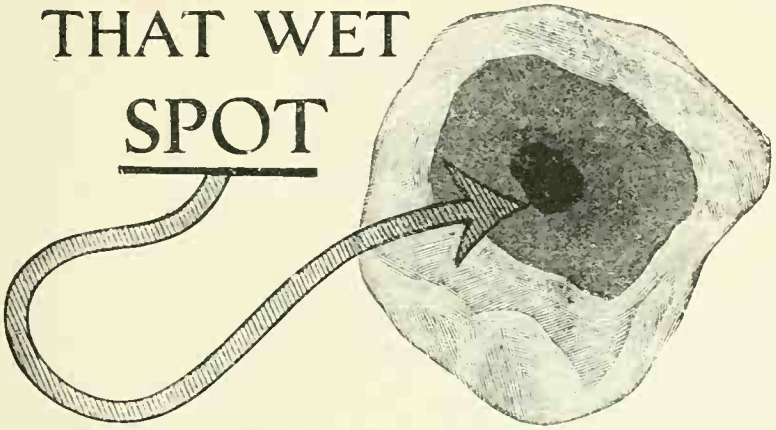

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The Antiphlogistine Poultice, some hours after its application to an inflamed area, reveals (on removal) certain phenomena.

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Benger's Peptonised Beef Jelly makes a palatable light invalid meal served cold with biscuits. It also readily dissolves in hot water as an appetising soup-beverage.

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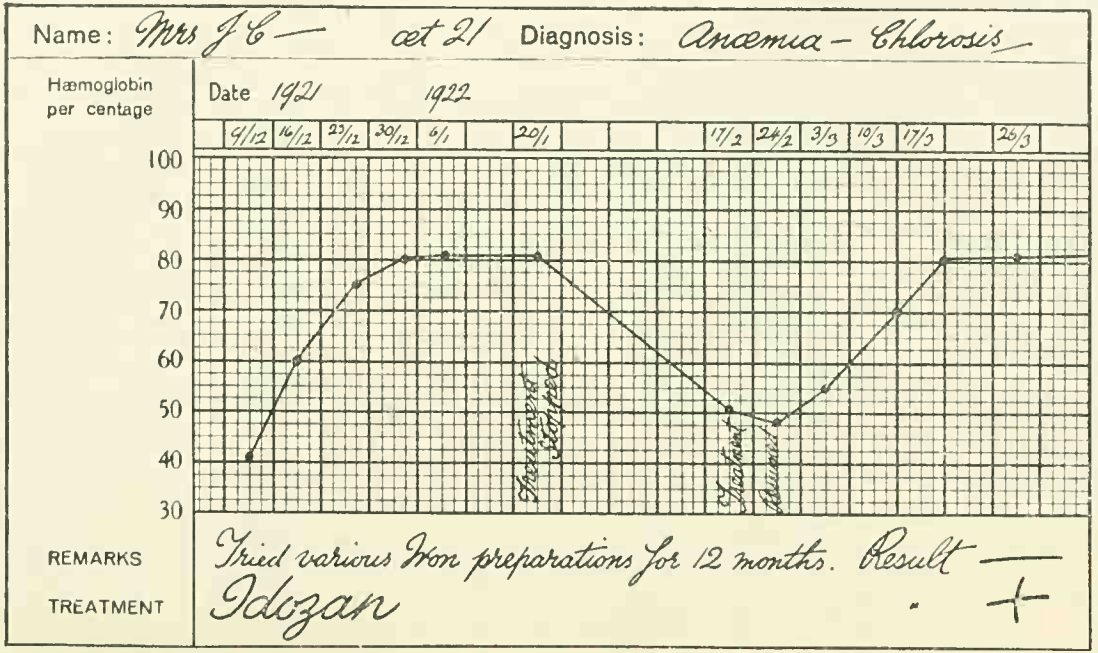
Name: Mrs J C— aet 21 Diagnosis: Anæmia – Chlorosis
Hæmoglobin per centage
Date 1921 1922
9/12 16/12 23/12 30/12 6/1 20/1 17/2 24/2 3/3 10/3 17/3 26/3
100 90 80 70 60 50 40 30
Treatment started
Idozan started
REMARKS
Tried various Iron preparations for 12 months. Result —
TREATMENT
Idozan +

Free sample of Idozan with Tellquist's Hæmoglobin Scale Book sent on request. This scale book will be found a useful VADE MECUM for the busy Practitioner and contains a colour-scale plate with specially prepared filter papers for blood comparison

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(Soluble Gelatine Capsules.)

***PITUITARY EXTRACT.**

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Posterior Lobe. (Capsules or Injections.).
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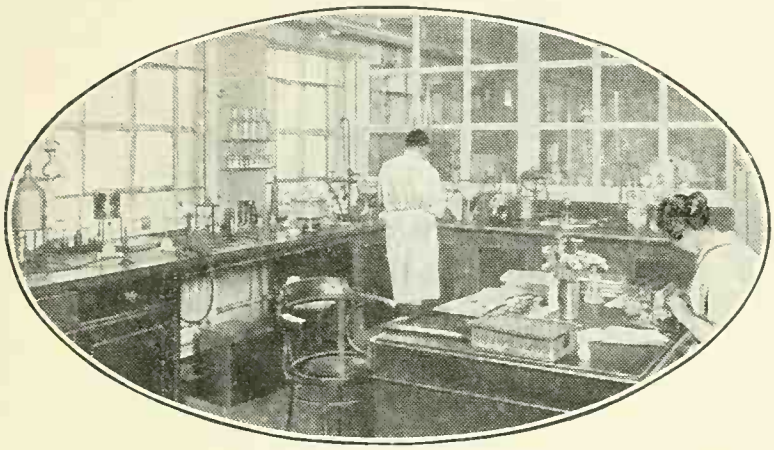

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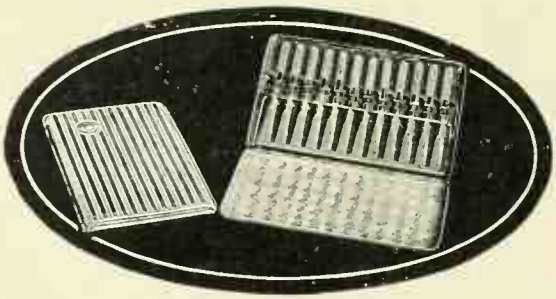

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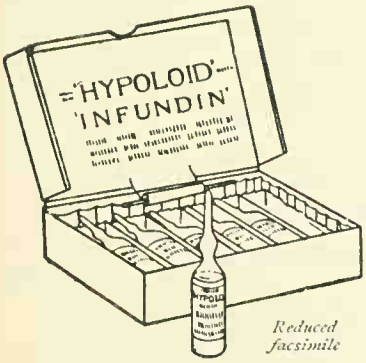

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The Ambulatory Treatment of Fractures and Diseased Joints

By CAREL A. HOEFFTCKE

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WITH AN INTRODUCTION BY

FRANK ROMER, M.R.C.S., L.R.C.P.

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THE publication of Mr. Hoeffteke's book describing the ambulatory treatment of fractures and diseased joints with his extension appliance and giving cases and results, is a timely reminder of the existence of an apparatus for the application of a principle far too little known or appreciated. Hitherto descriptions of this treatment and testimony as to its value have been confined to papers read before the Medical Societies, articles in Medical Journals and short descriptions in Medical Books. The publication of this amply illustrated work, demonstrating its application to disease and fractures, should be the means of bringing home to the Profession the extent of the mitigation of suffering obtainable by the use of the principle involved in this unique extension appliance. It is invaluable not only for fractures of the long bones of the lower extremities, but also because the whole field of arthritic pathology comes within its scope. A permanent cure may be confidently expected to follow its use, and not merely amelioration of the condition.

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It is evident that the severity of traumatism, the duration of the disease, and even the age of the individual are factors which may be disregarded when ambulatory extension treatment has been decided upon. Tuberculous joints in children, rheumatoidal arthritis with ankylosis in the aged, contractions with suppurating sinuses due to bony injuries, compound fractures, are all amenable to treatment by means of the Hoeffteke extension method, even after years of neglect or when other means have failed to effect a cure.

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THE PRACTITIONER

JULY
1923

Contraception.

THE subject of Birth Control, with which this Special Number deals, is one which has occupied the thoughts of political economists for about two centuries. The facts and problems which the question presented were, however, first clearly stated by the Rev. Thomas Malthus, an intellectual and philosophical divine, who in 1803 published a learned treatise entitled *The Principles of Population*, in which he showed that, although the population of these islands increased in geometrical ratio, the means of subsistence never increased beyond arithmetical ratio. And he went on to argue that unless some effective means of birth control were practised, results economically and politically disastrous must surely ensue. The opinions expressed in this little work evoked a storm of hostile criticism, but as the facts could not be gainsaid, the matter was gradually transferred from a noisy and nebulous religious atmosphere to one of solemn and slumberous scientific calm. In this academic peace it was allowed to rest until, in the late seventies, Charles Bradlaugh and Annie Besant started a platform and pamphlet campaign

in favour of limiting the population. In spite of the restraint in its manner and the frigid logic of its matter, this campaign at once drew several hornets' nests about the ears of its originators, Then again the question was allowed to sleep in the thin ashes of a seeming peace until suddenly fanned into a fierce flame by the suffragette demand for the personal and economic independence of woman. The campaign now assumed an aspect totally different from the disinterested academics of Malthus and the philosophical politics of Bradlaugh; it became urgent, insistent, and human. What may be called the intensive motherhood, which had been regarded as a privilege by the Victorians, a swinging pendulum caused to become a reproach to the Edwardians, and the full female emancipation wrought by the Great War completed the excursion. The subject of contraceptives has now become a commonplace of conversation at women's clubs and mixed tea-tables. This attitude, which was at first merely defiant, eventually settled down into one which, while absorbing the musings of Malthus and the premature pragmatics of Bradlaugh, became frankly practical, material, and utilitarian. Women of unblemished virtue espoused the cause, and eagerly advocated it on the highest moral grounds, summoning to their aid a wealth of intimate detail to which no man has ever dared to aspire. The floodgates of special knowledge being thus unlocked, the stream would seem at the moment to be carrying all before it. Medical men have found in popular handbooks, written by women with no medical qualification, practical information of which they had hitherto been ignorant, and a great deal of which they might legitimately disapprove. They are daily consulted as to the relative merits of the various expedients recommended, in which even the unmarried maiden expresses a detached and

disinterested concern.

In the difficult situation which has thus arisen, it is the desire of THE PRACTITIONER, by means of this Special Number, to give assistance from the considered opinions of those members of the Profession who have every right to be heard on the subject; to furnish the reader with such facts and considerations as will enable him to judge what attitude he ought to adopt towards a matter upon which he is rightly expected to express himself definitely and speak with authority.

There are still those, though they are not many, who hold quite firmly that contraceptives in any form are ethically inadmissible; that continence is the only moral means of limiting the size of families. Such a view is entitled to every respect, but its advocates find it difficult to counter the chief objection which is urged against it, namely, that for the great majority, continence is an unattainable counsel of perfection, so that its advocacy is in reality no contribution to practical politics.

We have to realize that a knowledge of contraceptives has arrived, that it is no longer the monopoly of the classes, but is penetrating deeply into the masses, and that the public look to the Medical Profession to see that this knowledge is directed into the right channels. If, then, there is to be a limitation of population, by what means is such limitation to be effected? Members of the profession should be in a position to discuss this point with dignity, sympathy, and restraint, so as to enable them to put to shame the salacious sallies of the market-place, and the sly stupidities of the would-be smart. The subject of the limitation of the family is intimately connected with that of eugenics, and in his capacity of family friend, no less than as a point in his duty to the State, it may often be that in individual cases a medical man may have to advise such limitation.

To be unable to suggest any means to this end, beyond mere continence, is to deprive himself of a large measure of his authority.

An aspect of this whole question which, from the point of view of the community is a very important one, is that limitation is now practised by the classes from which it is desirable that the community should be recruited, and is not practised by the undesirables. The question of sterilizing degenerates has been seriously advocated and discussed in very influential quarters; and though everyone recognizes the unwisdom of the marriage of couples in whose families there is a story of insanity, the fact remains that there is no means of preventing such marriages. The prevention of offspring from such marriages is, however, not only possible and desirable but is often desired by the parties themselves, and it is only right that suitable medical guidance should be easily within their reach. At present they have only the unqualified and sentimental enthusiast to guide them. Apart altogether from demonstrable degeneracy and insidious insanity, there can be no disguising the fact that whereas the better classes can and do limit their families, the lower classes do not. Careful and considerate couples do not think it right to engender more children than they can reasonably hope to bring up according to their own accustomed standards, while those with no standards or no ambitions are too apt to reason that their children, however numerous, could be no worse off than they themselves have been. They consequently make no attempt whatever towards limitation.

The ever-present necessity for forethought against war has created a false standard in these matters. Hitherto mere numbers have represented the ideal to be aimed at; a falling birth-rate has been regarded with serious alarm. Quantity rather than quality

has been sought after. The recruiting experience of the Great War has demonstrated the fallacy of this view. It has shown that under the then existing conditions, and they still exist, a very large proportion of the young adult males were not only quite useless for military purposes but represented a very serious drag on the communal coach. If, therefore, it can reasonably be argued—and it can—that limitation of families in the lower classes would mean better physique and increased efficiency for the individual, then the case for limitation, even from a purely military standpoint, becomes unanswerable. But although "the Great War to stop all war" would appear for the moment to have failed lamentably of its purpose, we are surely entitled to look forward to an age when military considerations will not be the dominating considerations in the schemes of statesmen; when the art of taking life will give place to the science of directing life; when the energies of the community will flow in channels productive rather than destructive. Such a time may be not quite so far distant as for the moment it appears to be, and when it does arrive, the question of the limitation of families will certainly attain to the position which its importance demands.

The subject of birth control is not taught in the medical schools, and in the case of schools for male students it is safe to predict that it never will be. In schools of medicine for women, it is equally safe to predict that it will be; for women are more practical and less hypocritical than most men. It is therefore desirable that medical journals should afford opportunities for full and fearless discussion of the subject. And not only because of the considerations above referred to, but for the incidental yet very cogent reason that contraceptives are calculated to abolish the abortionist.

Birth Control as seen by an Open Mind.

By SIR MAURICE ABBOT-ANDERSON, M.V.O., M.B., B.S., M.R.C.S., ETC.

Knight of Grace of the Order of St. John of Jerusalem.

WOMAN'S paramount glory is to reproduce her species!

The question of the morality of bringing into the world numbers of children, which the parents are unable to support or to care for properly, from the point of view of hygiene and public health, has been argued repeatedly, but there is undoubtedly a consensus of opinion amongst broad-minded, thinking persons upon the inadvisability of it, as also to the injustice to the children caused by indiscriminate reproduction of the species from the eugenic point of view.

It is not illegal to use contraceptives, but it is tacitly acknowledged with a shake of the head, as something only to be referred to in a whisper. By the same token it is murder, or at least manslaughter, to take the life of a woman unintentionally by using means to produce an abortion, and quite rightly so; we may argue from these facts, therefore, that the law presumably condones, winks at, and we might almost dare to say indirectly suggests, the use of contraceptives by those persons who see nothing wrong in it, or even by those who adopt an irresponsible attitude in the matter.

If children are necessary to the State, and if it looks askance at any encouragement being given to the use of contraceptives by scientific men and others, then

it is obvious that the only honest line for the State to take is to make the use of such preventive means an offence against the law—the corollary naturally being that it must then shoulder the burden and support the consequent surplus population. This it is now doing, but in the guise of unemployment. If there was no over-production, there would not be *continuous* unemployment. The State should in years to come shoulder its responsibilities; it would then be just and proper that inasmuch as it did so, it should have a call upon those it supports. In this way we may, even yet perhaps, see the means of populating our colonies, now crying out for this, and why should not the colony so peopled pay to the mother country a capitation tax for services received? Some such enlightened policy would solve the question, unless and until the colonies became overpopulated.

Now, to come to the question at issue, it may definitely be laid down as an axiom that as regards the act of generation, any deviation from the natural consummation of the act as dictated and intended by Nature must be detrimental in some degree to both parties contracting.

The climax of the act of generation is the "orgasm," which to reach its surest destiny should be coincident in the male and the female. Any means taken that interfere with this natural function imply a loss of satisfaction in one or both, with a reflex inhibition of the consequent soothing properties of the performance of this function. Upon this effect hinges the advice that the profession should give to those seeking it, and upon this depends the nature of the contraceptive advised.

PUBLIC CLINICS.

Then again comes up for argument the question

whether advice should be given in public clinics or not. There is a tendency nowadays, rightly so in my opinion, to bring to the surface rather than to hide away such problems as this, and to accept the fact that as long as the world lasts illicit intercourse will probably take place, tending to propagate and support the presence of venereal disease. Ventilation of such subjects, therefore, can only be in the public interest, but from my own point of view clinics in connection with the teaching of the methods of application and the use of contraceptives are at the present time unsavoury and harmful institutions, and should, if existing at all, be only in the hands of the medical profession; women doctors are pre-eminently fitted for this purpose, to educate their own sex.

THE IMPORTANCE OF EDUCATION.

The only solution lies in gradual education in the matter. If such education is wisely undertaken, it will lead to the establishment of a healthy and happy population. As regards the use of contraceptives, it is at present a case of "To do a great good, we do a little harm," as exemplified when such methods get into the hands of those who use them for immoral ends. Even then I doubt very much whether such information, coming into the hands of both boys and girls, will not in the majority of cases be more likely to produce a deterrent effect, rather than to encourage indiscriminate intercourse. All depends upon the "*delicate atmosphere*" surrounding the method of imparting such information. To the *man* about to marry who is not in a position to support a large family, it should be the province of the doctor—and the doctor only—to impart such information. It is unnecessary to shock the naturally tender and delicate susceptibilities of the girl. The man upon whom she is about to rely for support "for better, for worse,"

through fair weather or foul, is the one from whom she will accept direction in this matter as in any other.

Here we might digress for a moment, whilst considering the part that education should play in such matters, to say in passing how unutterably simple and easy it is to train a child's mind in the sexual direction without shocking or disturbing that sensitive organism, if the question is in the first place introduced from the point of view of cross-fertilization in flowers; most entrancing, impressive, and pure!

THE LEAST HARMFUL METHODS OF CONTRACEPTION.

Allowing, therefore, that some means of contraception is sometimes justifiable and, indeed, advisable, let us proceed to the discussion of those in use, in an endeavour to arrive at that which is least harmful, first to the woman and then to the man; let us then consider how such a method is harmful, and to what degree it is so, if at all.

I may as well say at once that in the course of my professional career, and in the fulfilment of my duties in that capacity, I have given this question much temperate and careful consideration, and I have arrived at the very definite conclusion that the least harmful methods of contraception are—

(1) The use of the asepticized sponge;

(2) The combined use, on the part of the female, of some form of pessary (commonly termed the "Malthusian Pessary") which, when placed in the vagina and allowed to melt, usually destroys the spermatozoa, and on the part of the male, of the condom.

My reason for arriving at this conclusion is that these methods interfere in the least degree with the ordinary act of intercourse as dictated by Nature. Even in these, as in any other method, there is one grave fault, and that is, that they do away with the natural instinct

of the male to woo his mate, and for the woman, to be wooed before she is won. The act by any such means is reduced to the gratifying of the purely animal instinct, and is shorn of the romance and poetry which should normally raise the performance of this function to a superior plane. The mere knowledge of the fact that the act undertaken is almost sure to be unproductive, in the case of a woman yearning for motherhood, but to whom for some reason this is to be denied, at any rate temporarily—and on the other hand, the fear that it is possible that in spite of such contraceptive methods, conception may occur—is sufficient to translate the act to a lower plane. The mental impression thus produced, more especially in the mind of the woman (the recipient), when constantly repeated must have an injurious effect upon her nervous system, and "hope deferred" in this direction, together with the abuse of dissatisfying contraceptives, will inevitably lead to a nervous breakdown, and may finally land the victim in a lunatic asylum, or—who knows?—may even be a direct cause in producing disastrous ovarian hyperæmia, with subsequent pathological changes leading eventually to the operating table.

So much for the female. As regards the male, the effects are most certainly not so disastrous, if indeed these methods are injurious to him at all. All that can be said on this head is that, by the second method, the sensitive corona being covered, the natural instinct is not indulged in to such a satisfactory termination as it would be if not interfered with by artificial means.

The first method is the use of properly shaped aseptic sponges, which have been rendered thoroughly sterile, and to which a piece of silk is attached for purposes of removal. These are sold in bottles, and can be kept practically pure. When once used, they are burnt and destroyed. For purposes of introduction and to render them soft and pliable,

they may be wrung out in any antiseptic solution, and if necessary treated with one of the many antiseptic jellies or creams before using.

This method is the least harmful of all, inasmuch as it leaves the act almost normal, but it is obviously less likely to be an effective preventative of conception than the method of soluble pessary and condom. It depends upon how it is applied, and it requires a little anatomical knowledge.

OTHER METHODS IN USE.

It now remains to discuss briefly the advisability of using other contraceptive methods that are sometimes recommended. There are three which invite discussion. Two of them are open to the grave risk of sepsis, unless the person is educated in this direction; the first immediately so, and the second more remotely, and yet quite positively liable to the same defect.

The first, known as the "Gold Pin," may at once be described as a barbarous weapon. This can only efficiently be placed *in situ* by a medical man, and I feel sure that none of our brethren could so far soothe their consciences as to insert this instrument into the cervix uteri and to leave it there. It does not prevent the entrance of the spermatozoa, and in my opinion acts as an abortifacient. It is therefore a criminal proceeding, and the only difference between the use of this instrument, and the passage of a sound or other instrument to produce an abortion, is the fact that this abortifacient is used before the act instead of subsequently. This instrument (the Gold Pin) has been the cause of death in several cases, and in one case to my own knowledge the instrument had produced severe ulceration of the cervix, extending to the endometrium, and one of the blades was found broken off and lying as a foreign body in the uterus. This instrument, therefore, must be wholly

discarded from every point of view.

The second method to be considered is that commonly known as *the check-pessary.* The check-pessary is an indiarubber cap, fitted with a firm watch-spring ring, which is passed up the vagina by the woman herself and fixed over the os externus, grasping it firmly around by means of the spring. There are at once four obvious objections to its use.

(1) The difficulty of effective application.

(2) The liability of the rubber to set up a vaginal discharge, for, as we know, many persons are extremely intolerant of the presence of any rubber instrument in the vagina;

(3) The most important of all, the liability and, indeed, certainty, that if the instrument is left *in situ* hyperæmia with subsequent inflammation will undoubtedly be set up, with probable production of erosion of the os.

(4) The liability to sepsis.

As regards the effective application of this instrument, it is only necessary for the doctor to endeavour for himself to fix one of these appliances in position. Unless expert, this is no easy matter, and I am sure that five out of six of these appliances are not properly placed in position by the woman, and only act as a foreign body lying in the vagina, and producing in the person a false sense of security.

Another evident fact is that should this pessary be effectively applied, it is just as much a bar to the voidance of any secretion from within as it is a bar to the semen from without.

In passing I may say that as regards sepsis, this is all a question of introducing bacteria which are foreign to the vagina, the discussion of which would lead me beyond the purposes of this paper in THE PRACTITIONER.

Another method commonly in use is that known

as "incomplete coitus," a most harmful proceeding not only to the recipient but also to the giver. I should go so far as to classify this method as almost on a par with masturbation.

CONCLUSION.

In conclusion, I will again say that the two most satisfactory methods from every point of view are

(1) The application of the aseptic sponge;

(2) The use of a melting pessary and condom.

I regret that I cannot go now more deeply and scientifically into other general harmful effects of the *constant* use of contraceptives, but I should regard this paper as quite incomplete if I did not definitely lay stress on the point that it is an established fact that complete sterility may result therefrom.

Birth Control.

By HENRY RUSSELL ANDREWS, M.D., B.S., F.R.C.P.
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BIRTH control is a difficult subject on which to write, because one feels instinctively that any artificial interference with sexual intercourse is unnatural and often harmful.

At the present time, obstetric physicians are very often asked by patients for advice how to prevent conception.

It is not an uncommon thing for men to come just before marriage to ask advice on this subject. If the advice is sought simply because it has been decided that no children are wanted for the first few years, the case is dealt with easily; in my experience, a short talk usually convinces the man that prevention of pregnancy during the early years of married life is unwise, and he goes away determined that he will adopt no unnatural practice until he has at least two or three children.

Prevention of conception during the beginning of married life, even if it is intended to be only a temporary prevention, involves a considerable risk of destroying the glamour and romance of marriage. Obstetric physicians, and probably family doctors as well as lawyers, have evidence of this fact. Many young brides are simply disgusted and outraged at the idea of " precautions " being taken.

The sexual act is often painful and rather revolting to the wife for some time after marriage. If it is performed solely for the husband's gratification, with precautions taken that conception shall not ensue, the wife may resent it deeply, and, although she may

not speak so plainly to her husband, may tell her doctor that she considers that in her case marriage is really simply legalized prostitution.

In many women the desire to have children is the only thing which induces them to submit willingly to sexual intercourse, and the effect of the thwarting of this desire may be deep and far-reaching. Cases are not unknown in which a woman, who experiences no pleasure or satisfaction from sexual intercourse and is denied by her husband the possibility of pregnancy, seeks intercourse with another man solely in the hope that she may bear a child.

In the case of some very "modern" young women the psychological effect of prevention of pregnancy may be negligible, but some of the girls who have a surface appearance of being ultra-modern are really very human and normal under a veneer which is put on just as superficially as their unnecessary powder and paint. Some of them are just as old-fashionedly "in love" as their grandmothers were, and make just as charming mothers if they are given a chance.

A proverb, which may be quoted with effect in giving advice to young couples who say that they have decided that they do not want children during the first few years, is, "She that will not when she may—when she will she shall have nay."

If there is already one child and advice is sought for the prevention of any increase in the family, one strongly urges that there should be at least a second child, if not more, for the sake both of the first child and of the parents. The solitary child is deprived of a great deal in having no brother or sister—there is no need to labour the point, on which there is almost universal agreement. The "Hen with one chick" is proverbial. Deep and lasting as may be the sense of loss when one child is lost out of a family, it is nothing to the hopeless aching grief which is felt when the only child

is lost, and it is too late to hope for another. Anyone who was in practice during the early months of the war, when childless women who had prevented pregnancy and mothers who, after having one child, had prevented further pregnancy, flocked to obstetric physicians begging, usually too late, for anything that would help them to become pregnant, will be for ever after chary of giving advice about the limiting of a family, except for adequate medical reasons. It was borne in on us then that prolonged prevention of pregnancy often rendered conception impossible when the "precautions" were given up, and both husband and wife longed ardently for a child.

The discussion of the best method to advise, in cases in which prevention of pregnancy is indicated for medical reasons or other reasons which are considered adequate, I leave to others in this Special Number.

Conception Control.

By LADY FLORENCE E. BARRETT, C.B.E., M.D., M.S.

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IT is claimed that conception control is one of those subjects which, though immediately concerned with the health of the nation, has been forced upon the apparently unwilling attention of the medical profession by the lay public.

The attention of the profession has appeared unwilling partly because the consideration of those cases in which health demanded that no children should be born was both medical and individual, and therefore not a subject for public discussion, and partly because the decision of healthy people to limit their families is an ethical decision, and advice from the medical profession only comes in if patients decide to use artificial means which may be inimical to their health.

The question whether you are, or are not, in favour of the practice of conception control, is not one which can be answered by medical people in the direct affirmative or negative. The real questions which, as guardians of the health of the nation, the medical profession has to answer are: —

1. Under what circumstances ought child-bearing to be forbidden?

2. What are the best methods to attain this end in various cases?

3. What are the results from the point of view of the health of the individual of the contraceptives

commonly in use?

4. What is the effect on national health of the modern tendency to an extended use of contraceptives?

1. UNDER WHAT CIRCUMSTANCES OUGHT CHILD-BEARING TO BE FORBIDDEN?

Whenever any condition of ill-health in the mother renders child-bearing a peril, it is the duty of her medical adviser to tell both herself and her husband that they must have no more children. Certain conditions prohibit pregnancy at any time in the future; others require only temporary protection from the risks of conception.

In pre-aseptic days a pelvis too small to permit the passage of a living child would have been included in the former, for it would obviously have been the greatest cruelty to allow a woman to go through pregancy with a difficult delivery and no hope of a living child at the end. To-day a woman with such a pelvis can be safely delivered of a living child by Cæsarean section.

If, however, after one or more pregnancies, such a mother wishes not to risk further abdominal operations, she has a perfect right to her decision, and in that case future pregnancy may be prevented by removal of portions of the tubes at the time of delivery, and this is a far healthier method of prevention than the use of artificial contraceptives at each intercourse.

Among other conditions of chronic ill-health which render future pregnancy undesirable are progressive mitral stenosis, progressive kidney disease, diabetes, repeated puerperal insanity, or a severe attack of heart failure from any form of cardiac disease.

From an eugenic point of view, it is also very important that an inheritance of mental defect, as distinguished from mental disorder, should not be passed on

to another generation.

2. WHAT ARE THE BEST METHODS TO ATTAIN THIS END IN VARIOUS CASES?

In these and similar cases in which the practitioner has to advise against any pregnancy, the whole circumstances of the individual couple have to be taken into consideration when discussing with them how this end can best be attained. Obviously, the first point is whether intercourse as well as pregnancy is harmful to the invalid. If so, its prohibition with advice about methods of life will attain both ends. But, apart from such necessity, the effect of the method used on the happiness as well as the mental and physical health should be carefully considered.

When absolute sterility in future is essential it may be wiser in certain cases, if desired by the wife, to prevent any possibility of conception by a small operation. Some women who do not wish to be debarred from marital relations for their own or their husband's sake, or both, would prefer an operation to the use in perpetuity of artificial methods of prevention, but such a decision should only be made after consultation and careful consideration of the patient's disability.

When it is possible that pregnancy may be safe in the future, such an operation would be unjustifiable, and temporary prevention of conception must be attained either by abstention from intercourse, or by the use of a carefully tested condom. A quinine pessary made up from prescription may be used, but is not absolutely safe, and it may have some prohibitive effect on pregnancy in the future.

Somewhat different considerations arise when the ill health, which leads the practitioner to forbid pregnancy, follows repeated childbearing or miscarriages. Here very frequently exhaustion is partly due to

excessive intercourse, and any advice which leaves this factor untouched, while adding to it the nervous strain which comes from the use of methods advised to women, will not benefit the health of the patient.

If doctors are to interfere, as in such cases they must do, with the intimate relations of husband and wife, they must be frank with both, for many couples have no knowledge about what frequency of intercourse is normal and what is excessive for human beings, nor any knowledge that coition involves expenditure of nerve-energy and if indulged in to excess must diminish the energy for general activities of life.

Problems of this nature have been recognized and dealt with by practitioners for generations. Of late years, the modern publicity about contraceptives has led to an entirely new set of questions for the medical profession.

3. WHAT ARE THE RESULTS FROM THE POINT OF VIEW OF THE HEALTH OF THE INDIVIDUAL OF CONTRACEPTIVES COMMONLY IN USE?

Roughly speaking, patients who seek advice about the use and safety of contraceptives may be divided into two groups.

(1) *Those about to be married* ask advice how to avoid having children during the first few years of married life. They give various reasons if asked why they do not wish to have children at once. Many say with surprise, "Why, no one does, you know." Others say that they want to have a good time first, others that their house is impossible for children, and others that they are going abroad for a time.

Some doctors in the midst of a busy life have said, "Read the books on the subject and use the methods described." This is surely the worst of all advice, for it thoughtlessly stamps with medical approval methods which are not only harmful but absolutely impossible

to the newly-married woman with very few exceptions: check-pessaries, caps, etc., are not possible to the virgin, and advice to use them has caused great distress.

Very frequently, a frank discussion of the facts about artificial methods of conception control, without undue bias in either direction, leads a young couple to decide not to spoil the natural expression of affection by artificial methods. If they decide otherwise, it is for the practitioner to advise what is possible and the least harmful.

(2) *Those who having had children wish to prevent more,* and come for advice how this should be done.

Here advice for or against prevention must be clearly distinguished from what is medical advice rightly demanded from the practitioner. The doctor's experience and consideration of all the factors in the case will often lead to discussion of the decision of the patient from a friendly point of view, but such decision rests ultimately with the patient, and if she is determined to take all chances in order to prevent further pregnancies, the doctor's part is to make clear the effects of the various contraceptive methods on the health and well-being of those who use them.

The gold or all metal stem pessary, which is used to a considerable extent in America, should be absolutely condemned. It is designed to be worn constantly with the object of keeping the cervix permanently open, and it results very frequently in severe sepsis involving the uterus and appendages.

Coitus interruptus is another method of preventing conception, and is very largely used in this country. It is a method which, while appealing to the public as being more or less natural, produces definite nervous results in the woman, such as insomnia, irritability and other nervous manifestations. In some cases it seems to produce a state of chronic pelvic congestion with the

accompanying symptoms.

The various rubber *check-pessaries*, including the contraceptive cap, are by no means certain preventatives. The fact that they retain the uterine secretions behind them (in this differing from pessaries used for prolapse) and involve unskilled manipulation, frequently results in acute or chronic endocervicitis. They are rarely accurately adjusted, and are not therefore contraceptive; many cases of pregnancy have occurred when they have been in use, owing to the apposition being incomplete, or by the rubber being rendered porous by lubrication with vaseline, but the unhealthy conditions produced in the pelvic organs in so many cases is the important factor.

Immediate douching after intercourse either with plain water or with antiseptics only has effect on the seminal fluid left in the vagina. It cannot reach that which has passed by suction into the uterus, and is therefore unreliable. The practice is irksome and nervously harmful to many women.

Sponges and tampons containing antiseptics are used, but set up reactions which alter the secretions of the vagina and cervix. Their use frequently results in a leucorrhœal discharge, and may be followed by sterility.

Quinine pessaries when ordered by a definite prescription are effective, but when bought in a ready-made box are liable to vary in strength and to be ineffective.

Intercourse only during the "*safe period*" is a method which has been used with success by many women, but the period which has been considered "safe" in this country varies so much that it is extremely difficult to come to any definite conclusions from the mere report of patients that they have found it successful or unsuccessful. The most accurate piece of work on the subject was done by Seigel during the war and published in the *Münchener medizinische Wochenschrift*,

1916. He exhaustively considered the time of conception relative to menstruation in the case of some 300 births. This was done during the war when the leave of soldiers amounted to only two days, and the date of conception relative to the first day of the preceding period could be accurately placed. He found that from the first day of the period onwards the fertility-curve rose to the highest point on the sixth day, remaining there till the twelfth day and gradually diminishing to the twenty-first day. Between the twenty-second and twenty-eighth day no child was conceived. This work requires a larger number of cases, and further confirmation, before it can be finally accepted as indicating a period of absolute sterility.

Condoms.—The surest contraceptive, apart from abstinence, is the use of the condom when applied correctly. Each sheath needs individual testing by water, and must be large enough to avoid risk of rupture by seminal fluid. This, however, in common with all methods used by women, prevents the absorption of seminal fluid by the woman. Their use is objected to by many men in the belief that they cause disease. There is no evidence in support of this. The advantage of their use, as compared with check and other pessaries, is that they do not involve the introduction of drugs or foreign bodies into the vagina.

It should be pointed out to all patients that contraceptive methods tend seriously to interfere with normal consummation of an ideal marriage for at least one of the participators, and that some are followed by sterility.

4. WHAT IS THE EFFECT ON NATIONAL HEALTH OF THE MODERN TENDENCY TO AN EXTENDED USE OF CONTRACEPTIVES?

The use of contraceptives cannot fail to have some influence on the mental and physical health of the

nation. If by their use the propagation of the least healthy and the least efficient is limited, it is obvious that the general standard of health and efficiency would thereby be raised. But the converse is also true, and if contraceptives are chiefly used by the more efficient citizens, then the general standard would be lowered; such a process if continued must gradually tend to eliminate those fitted to be the leaders, originators, and overseers in the various human activities, and hence work done in the arts and sciences, in commerce, exploration, and colonization, will gradually deteriorate in quality and quantity.

It is surely the duty of the medical profession to consider the trend of such customs as the use of contraceptives in relation to the nation, as well as to the individual. The question is which class will use these methods successfully, and consequently limit its numbers. It is clear that contraceptive measures to be used successfully demand some amount of time and of skill, and facilities for cleanliness. These are not available amongst the least privileged people, and the problem of limiting the propagation of this class is not likely to be solved in this way. To attempt to lower the number of the efficient while the inefficient multiply spells disaster in the future.

The multiplication of the unfit presents a vicious circle, for privation tends to increase fertility and fertility increases privation. The Medical Officers of Health and the Education Authorities can to a certain extent break this circle in their claim for normal facilities for physical health and mental development in every class, but meanwhile it would seem to be a sound policy to use our influence in such a way that if large numbers below the average are born, there may be sufficient leaders above the average to devise and direct their activities.

The Harmful Effects of Artificial Contraceptive Methods.

By A. LOUISE McILROY, M.D., D.Sc.

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THE use of contraceptive methods is being widely advocated as the only scientific means of dealing with our social and economic evils, and the medical profession has been criticized for their failure to give advice about methods of birth control. The medical profession must adhere to their lofty standards of morality, and just uphold the measures which give the best end-results to the community as a whole. It is not so much concerned with the aims and doctrines of the modern birth control movement but with its harmful results.

The medical profession has been the first to point out the undesirability of the uncontrolled propagation of the unfit, and has at no time advised the production of offspring under conditions which are unfavourable or detrimental to the individual or the State. At present there are an enormous number of measures in existence, which have as their object the improvement of the health and happiness of the human race under the supervision of the Ministry of Health, and which will in no way prove destructive to the life of our Empire, or undermine the morals of the community. Family limitation is frequently advised for medical reasons in cases in which the health of the parents or future generation might tend to suffer.

The advice regarding the employment of methods for

the prevention of pregnancy has hitherto been confined to confidential interviews between doctor and patient, and has not been published broadcast to the community. I know of no sympathetic member of the profession who would refuse to give help when it is requested by a patient, no matter what the conditions may be. Contraceptive methods are advised by a considerable number of the profession, but the general rule is that individual patients should be personally dealt with, and consideration given to medical reasons only.

The question of economic distress concerns the State, and should have its remedies applied on much broader and more permanent lines than by the use of contraceptive methods. The medical profession may to a great extent agree about the genuine endeavour on the part of birth control propagandists to solve economic problems, but they must be permitted to criticize the various methods which are advocated; they must remember that, in many cases, it is perfectly possible to advise the limitation of the offspring of unfit parents by methods other than those which involve the use of mechanical rubber appliances. The arguments in favour of birth control may be most convincing, but if their success solely depends upon the use of harmful contraceptive methods, they are bound eventually to defeat their own ends.

There is no logic in the statement that the human race is the only one in which propagation of the unfit is uncontrolled. There is no case among animals where mating is allowed and contraceptive methods employed. The prevention of mating is the only measure which should be practised, if we are going upon parallel biological lines. We require better selection in marriage, and if pregnancy is to be avoided and sexual relationships undertaken, a due consideration should be given to voluntary measures of

sterilization, the onus of which should not always be put upon the female partner, as it has been in the past by the medical profession.

It must be remembered that in cases in which pregnancy is prevented and sexual emotions at the same time are stimulated, the woman suffers much more than the man, for it means the denial of her stronger maternal instincts. This is at the root of much of the neurosis encountered among married women.

Abstinence from sexual relationships is the method, as a rule, advised by the medical profession. In special cases in which this is inadvisable or impossible to carry out, other methods must be considered. To lay down a rule that abstinence is always possible, or the converse that it is against the laws of natural married life, is absurd. It all depends upon the temperament of the individuals concerned. With the best intentions in the world, abstinence may have harmful results in one case and beneficial in another. There are pathological saints and physiological sinners in every community. Consideration must be shown to both partners, for women in married life have also their sexual needs. It is sometimes found among the working classes that continence is practised, and marital fidelity adhered to, under conditions which render it much more difficult than among those who have better surroundings and wider interests and pleasures.

The mid-menstrual or "safe period" is utterly unreliable, for the spermatozoa may lie in the female genital canal for two or three weeks. Fertilization, however, is most likely to take place at the time of greatest desire when the menstrual period is at its close.

The artificial methods of contraception may be divided into four main groups:

(1) The prevention of the entrance of the spermatozoa

into the vagina;

(2) Destruction of the spermatozoa by chemical agents;

(3) Occlusion of the vagina; and

(4) Occlusion of the cervix by means of mechanical appliances.

(1) *The prevention of the entrance of the spermatozoa into the vagina* is brought about by means of two methods—

(*a*) Interrupted intercourse;

(*b*) The application of the condom or sheath.

(*a*) The method of interrupted intercourse is very widely practised, even by those who would deem it immoral to employ any chemical or mechanical method. That it is unreliable is shown by the number of cases of pregnancy which occur within and without marriage, when the male has given assurance of his capacity for the avoidance of pregnancy. It is quite possible for emission to take place involuntarily, or for spermatozoa to adhere to the external genitals. It is an exceedingly harmful method, and should be condemned as a vicious perversion of the sexual act. It is the cause of a considerable amount of the nerve-strain and marital unhappiness of the present day. During intercourse it entails constant mental anxiety, it is a strain upon both partners and leaves the woman unsatisfied and in a nervous state. Its constant repetition may cause serious permanent neurosis, if not mental derangement. I have had considerable experience of its harmful effects upon patients who have sought advice about difficulties in their sexual relationships.

These three cases may be taken as illustrative of the harmful results of the practice.

Patient, æt. 23. Married three years. No pregnancies, came for advice because of severe dyspareunia, which necessitated the abandonment of intercourse

for almost two years. The condition found was that of vaginismus and neurosis. Interrupted intercourse had been practised from the beginning of married life for economic reasons. Both individuals were normal and healthy when married. Much marital unhappiness had resulted as a consequence of the different sexual relationships.

Patient, æt. 29. Sought advice for the cure of sterility. Her husband refused to allow her to become pregnant, although she was most anxious to have a child. After three years of married life he consented to give up the practice of interrupted intercourse. The patient was sterile, and her nerves were very much affected as a consequence of the abnormal practice.

Patient, æt. 30. Married one year. Could not permit intercourse because her nerves were so upset after it. Interrupted intercourse had been practised from the beginning of married life, because the husband said it was "the usual thing to do." The patient was on the verge of a serious mental breakdown, and there was also the danger of domestic estrangement. Both individuals were perfectly normal when marriage was undertaken.

These are typical cases of many others, and their treatment is generally successful after the restoration of normal sexual relationships. They are very much on the increase since the war. I have found in the investigation of cases of sterility that contraceptive methods play a large part in its causation. The problem of sterility in gynæcological practice is a far greater one than that of pregnancy, and it is a regrettable state of affairs that in modern days our efforts to cure the condition should be complicated further by the harmful results of contraceptive methods.

(*b*) The use of the condom, or sheath, is the least harmful and most reliable method of contraception known. The appliance should be made of fine rubber,

and a large size should be worn and oiled inside and out before its application. It can be preserved after cleansing by drying with powdered boracic, but it is recommended to renew the appliance frequently. The objections put forward against its use are that it interferes with natural sensation, and that it may rupture easily when in use. If fine oiled rubber is employed and of a large size, these objections are overcome. It has been stated that it prevents the beneficial absorption of the semen by the female genital canal, but if artificial methods are employed physiological results cannot be expected. It is quite possible that the absorption of semen is beneficial, but it has not been scientifically proved. If it is absorbed, it is through the glands of the cervix and uterus and not the vagina, so that any form of contraceptive method must have this disability attached to it, for there is no method of straining the spermatozoa from the prostatic and other glandular secretions. As the male partner is most frequently the offender in the want of control, it seems only just that he should take the necessary precautionary measures. If he is unwilling to do so, the case must be dealt with from a psychological point of view. I have had some patients seeking advice for vaginismus, who had given the information that the sheath was used during intercourse, but it was difficult to lay the blame entirely upon this method, for in all the cases the sexual relationships were complicated.

Sex is such a complicated matter, that when methods are employed for the prevention of pregnancy there are bound to be, in some cases, abnormal psychological manifestations.

(2) *Destruction of the spermatozoa by chemical agents* is brought about by various methods. Douching with antiseptic solutions, such as permanganate of potash, to be efficacious must be of such a strength as to be

harmful to the genital passages. This applies to every chemical substance employed; whatever drug is used to destroy the spermatozoa, it must at the same time injure the delicate mucous membrane of the vagina and kill its protective micro-organisms. Douching to be effective must be carried out immediately after intercourse, and it is obvious that the anxiety involved must have harmful results. I have seen cases in which strong astringents caused contraction of the vagina and permanent sterility. Lactic acid, soap powder, acetic acid, and other chemical substances are sometimes applied by means of sponges or tampons, and in some cases they have a tendency to cause irritation of the male urethra. Quinine in the form of pessaries is extensively used by the better class of prostitutes. It is expensive, and has an astringent action upon the vagina. It is said to cause mental degeneration of the offspring, should its effects fail and pregnancy take place.

In the treatment of pelvic affections, strong chemical substances are used with very great precaution and under absolute medical supervision. It is not surprising, therefore, to find harmful results from their use in conditions in which advice is not asked.

(3) *Occlusion of the vagina* is brought about by means of rubber pessaries with a flexible membrane or diaphragm which allows intercourse to take place but prevents the entrance of the spermatozoa into the cervical canal. Their chief defect is the inability to fit accurately the vaginal entrance especially during movement. Although care may be expended in the original adjustment of a pessary it is bound by reason of its flexibility to leave a gap by which spermatozoa may enter or may ascend after removal, even in spite of prophylactic douching. The vaginal pessary can be inserted by the woman herself, and with care should not cause harmful local effects. Its adjustment in a

virgin as a preparation for the consummation of marriage is difficult without injuring the hymen, and therefore causing destruction of the evidence of virginity. Its application in such a case would offend the æsthetic sense of the majority of young women.

The mechanical methods of contraception employed by women are as varied as they are unreliable. They are unhygienic in their use, and repulsive to most clean-minded individuals. They involve manipulation of the genital organs, and turn the spontaneous impulse of the spiritual sexual act into a premeditated physical performance.

(4) *Occlusion of the cervix by means of mechanical appliances.*—This is brought about by the use of the rubber check-pessary, which is designed with a ring and membrane which fits over the cervix and prevents the entrance of spermatozoa. If accurately applied and worn for more than twenty-four hours, it is an extremely dangerous appliance. It causes retention of the uterine secretion, which tends to be more profuse during sexual emotion. It involves considerable manipulation of the genital organs, for it requires the introduction of the finger and thumb into the vagina. There is the risk that in attempting to fit the pessary abrasion of the vaginal mucous membrane may take place, which might set up discharge, pain, and inflammation. It requires to be fitted on by an expert medical practitioner, and its adaptation to the cervix is a matter of considerable difficulty and uncertainty, for it is liable to be displaced by movement. It does not seem to be of any practical utility, if it has to be applied before each time intercourse is contemplated. The financial side alone of its application by a medical attendant would have its objections.

It is well known that the cervix varies in shape and size and that it tends to taper towards its lower end, thus rendering the retention of the pessary diffi-

cult. If worn for several days or weeks it might cause constriction, congestion, and retention of secretions, perhaps even of the menstrual flow with the dangers which are bound to be present in cases of hæmatocolpos.

It is useless in many cases to warn some women of the necessity of removal, for individuals are often forgetful and careless, and there is the temptation to retain an apparatus which is thought to be effective. As the check-pessary occludes the cervix, no warning would be given by the presence of an offensive discharge. It is the experience of many that ring pessaries, applied for the treatment of uterine prolapse, are sometimes forgotten by the patient, no matter how much warning she may have received about their proper removal and cleansing. I have taken out a large vulcanite ring from an old woman, who had it inserted ten years previously, which had caused serious ulceration of the tissues. I have also removed a rubber ring which had been in the vagina for fifteen years without being changed. How much more easily would a cervical cap tend to be forgotten or overlooked!

The pessary cannot be retained for long without setting up very serious uterine complications which, by causing pelvic sepsis or peritonitis, might have serious if not fatal results.

I have had experience of a considerable number of patients who have endeavoured to apply the check-pessary, and in no case have they been successful. It is just this difficulty in its adjustment and retention that explains why its results are harmless. It is, therefore, an ineffectual method of contraception; those who advise its use at the same time frequently suggest the application of quinine to render it efficacious.

Such intrauterine pessaries as the gold wish-bone may only be mentioned to be condemned. The wish-bone pessary is not a preventive against conception

but favours it, and subsequently causes early abortion of the fertilized ovum. It may, therefore, be classed under appliances for the production of abortion. Stem-pessaries are employed in gynæcological practice for the treatment of sterility, but while in use the patient is under direct medical observation because of the danger of sepsis or injury to the uterus.

Approval may be given to the arguments put forward by birth control propagandists, but some consideration must be given at the same time to the practical side of the question, and the difficulties and dangers must be carefully weighed. From the moral point of view, there is too much prominence given to the physical side of sex union, and what should be an almost unconscious spontaneous impulse is forced into a mechanical one by preparing for it by means of chemical or rubber appliances. Most people with a sense of delicacy must, at some time or other, revolt against such actions. When the motive is for health reasons and on the advice of a doctor, the question takes on a different aspect. Contraceptives will not bring to women freedom but worse slavery in sexual matters, for they will remain the instruments of men's uncontrolled desires.

Abstinence has frequently to be advised for pelvic lesions, and fidelity is maintained in the majority of cases. Is it any more illogical to advise abstinence for medical reasons when pregnancy is contraindicated?

Birth control does not mean sex control, but rather unlimited indulgence without its responsibilities and consequences. Each individual has a perfect right to employ contraceptive methods if so desired, but he or she must not expect to have the approval of the medical profession for so doing.

In conclusion, I would strongly urge the closure of "rubber shops," which advertise and sell contraceptive appliances together with books and literature of

an objectionable erotic character. They are a very grave moral danger to the community. If contraceptive appliances are to be advised by the medical profession, they should be obtainable on prescription at respectable chemists and instrument makers. The whole question should be cleansed and put upon a proper moral basis. Suggestions for the provision of birth control clinics by the Public Health Authority should be opposed. Two types of individuals would tend to make use of these institutions.

One for economic reasons; these do not concern the medical profession. The other for medical advice about the dangers of pregnancy. These latter cases can be dealt with at the out-patient departments of our existing hospitals or at the maternity clinics. It is against all traditions of the British medical profession to advise the use of any institutions for the control of conception alone. What is required is the further training of medical practitioners and medical students on the question, so that the patients seeking professional advice are not left to chance or refused information because of want of knowledge on the part of the medical attendant. I feel strongly that the subject of birth control is a matter for the consideration of the medical profession alone, and that they can no longer shirk their moral responsibilities in dealing with its present harmful results.

Birth Control—Medical Advice.

By J. S. FAIRBAIRN, M.B., F.R.C.P., F.R.C.S.
Obstetric Physician to St. Thomas's Hospital; Examiner in Midwifery and Diseases of Women, University of London, etc.

THE points regarding birth control on which the practitioner will commonly be asked to advise are its effects on health and the methods to be adopted. Though less frequently, cases will also arise in which a married couple may have to be warned on strictly medical grounds of the danger of a pregnancy to the life or health of the woman. My purpose is to confine consideration to these points, and to eschew all reference to the sociological and economic aspects of birth control, for I do not think the personal views of the practitioner should influence the advice he gives to his patients. I will also restrict my remarks chiefly to the effect on the health of the woman, both because my experience enables me to speak only of that sex, and also, when ill-effects are produced it is the woman who pays, if not the whole penalty, at least the major part of it. The consequences to the woman may be discussed under the two headings of *local*, the effects on the reproductive tract, and *general*, which will largely be psychological.

The effects on the reproductive tract will depend on the method adopted, and these methods may be divided into two groups, according as their object is the prevention of insemination or the prevention of impregnation after insemination.

The first group will consist of *coitus interruptus*, or

withdrawal before emission, or the use of a rubber sheath by the man, and in them local effects will not be produced, though possibly psychical effects may be, so that the second group alone calls for consideration. It may be laid down as a general hygienic rule that all methods in which some instrument or device for preventing impregnation (not of a fluid or soluble nature) is left within the uterus or vagina should be condemned at once.

The uterine stems or preventive caps are particularly to be anathematized, for they are a serious danger to health. The old intrauterine stems, which did much harm and no good, having been got rid of, after being used at a time when the natural curve of the uterine axis was thought to be the cause of symptoms, have been re-introduced in a worse and more permanent form to prevent conception. They seem to have a vogue in America (where they are made of low carat gold) and on the Continent (where some baser metal is used), but happily are rarely seen in this country except in the occasional cases in which the unfortunate woman has had them inserted while abroad, at considerable cost to her purse and still greater cost to the health of her reproductive apparatus. Sooner or later all such foreign bodies within the uterine cavity produce a septic endometritis, with its possible sequela of a purulent salpingitis and peritonitis, and thus very effectively cause permanent sterility. The functioning of the tract could be much more safely destroyed by abdominal section.

Caps or covers to the cervix, which will restrain the activities of the enterprising and determined spermatozoon, must also be impervious to the natural discharges from the uterus and, if left long enough in position, will result in their retention with similar risks. Cotton-wool tampons, sponges, and other and stranger materials passed into the vagina are liable to

be forgotten until they provoke a foul discharge. Those who have had the experience of removing some of these long-lost "preventives" will not easily forget the experience. The risk of a septic endometritis, though less with them than with intrauterine foreign bodies, is not negligible, and such procedures are too nasty and unhygienic to be sanctioned by medical opinion.

Medicated pessaries of some material which melts with the heat of the body, such as the quinine pessary, have not this objection and may be recommended as harmless and fairly effectual. Danger will only arise in the case of some strong or poisonous antiseptic or other chemical, which may injure the tissues, being used. A like warning may be given in regard to the use of strong solutions for douching.

In discussing the possible general effects of birth control on the woman, a far more difficult and contentious side of the question is attacked, because what knowledge we have regarding them is largely founded on impressions and on the interpretation of symptoms, the origin of which is often a matter of opinion. Hence this part of the subject, by whomsoever discussed, must be taken as an expression of personal views, bound to be influenced to some degree by the attitude of mind in which the subject is approached.

Blair-Bell has given a very good discussion from the gynæcological standpoint of the psycho-pathological effects in the *Practitioner's Encyclopædia of Medicine and Surgery*, 1913, page 1009, and in Eden and Lockyer's *New System of Gynæcology*, Vol. I., page 401. Both there and in psychiatric literature will be found fairly general agreement that the limitation of motherhood may produce in lesser degree those manifestations of nervous and psychical disturbance often seen in childless women, married or unmarried, if there is no complemental interest and occupation to fill their lives.

The childless married woman is much less frequently affected than the spinster because she has husband and home to look after, but whether voluntary denial of maternity would affect the incidence in the married seems pure speculation. Those in general practice will recognize the one-child family as one in which the parental anxieties are duly reflected in the ewe-lamb, so that, as Cameron has said, the only child can be diagnosed as the mother brings it into the room.

All of us must have recognized the psychical effects of incompletely fulfilled maternity; the type commonly seen by the gynæcologist exhibits abnormal visceral sensations, often attributed to a pelvic origin.

Many have described bad psychical effects as resulting from *coitus interruptus*, but I know of no evidence of this. A beneficial influence has been ascribed to the absorption of seminal products, though also without adequate evidence to support it. The epidermal lining of the vagina has, if uninjured, little more absorptive power than skin; Arthur Thomson, from the histological appearances of the endometrium has suggested that it has absorbent functions, and may be the avenue by which this hypothetical absorption takes place, but the evidence is altogether so thin that any general effect on the woman likely to arise from the adoption of birth control measures which prevent insemination is not worth discussion.

Doubtless the Chicago packing houses will soon produce a whole-gland testicular extract to counteract any deleterious result, containing all accessory male glands for administration in tablet form in place of the lost absorption from the small quantity of seminal fluid that reaches the uterine cavity.

Apart, then, from local diseases from bad methods and psychical effects from over-limitation of maternity, no ill results to health can justly be attributed to birth control. In regard to the latter, however, every

woman is a problem in herself; one may have her desires fulfilled by one or two children, and another may not; it must depend in the first instance on the strength of the maternal instinct, and in the second place on the other outlets she has for her interests; her outside energies may even swamp her desire for motherhood.

Discussion, especially at Church Congresses, has centred round spacing and the question of what is the optimum interval between pregnancies, and it may be worth while to follow the ecclesiastical lead. Taking two years as an average base line, that interval should be lengthened for those mothers who nurse their babies for six months and more, for the over-anxious mother of highly-strung temperament, especially if she has suffered from fatigue and nervous exhaustion as the result of pregnancy, labour, and lactation, for those who have had complications or suffer from organic weakness, and for those who have already several children and little domestic help. It may be shortened for those who do not suckle their children, and are strong and healthy and have plenty of servants. Apart from arriving at an optimum interval for the individual mother and household, there is little to be gained by spacing at long intervals, and much against it. On the whole, it is better for the parents and very much better for the children, that the selected number should be born within about a couple of years of one another; from the obstetric point of view, the attitude of the woman through pregnancy and labour makes these physiological states more likely to be disturbed if the intervals are longer, each pregnancy and labour becoming more like a first, being approached with fear and trembling and almost the dread of the unknown. The more fuss there is over a confinement, the less likely is it to be physiological, and that is the tendency of too long intervals. The long interval family

become a series of only children, with over-anxious parents and nervy children, too divided in age to be playmates. Obstetrician and pædiatrician will concur in the evils of wide spacing.

The strictly medical reasons require little consideration here, for they form in their definite degrees a separate problem from that ordinarily understood by birth-control. They are those of permanent obstetric difficulty, organic disease, and psychic disorder. The first is fully discussed in all obstetric works; of the second, active tubercle, cardiac disease with failure of compensation, and renal inefficiency may be mentioned as obvious instances; except in those cases in which mental disease has clearly been due to sepsis or other non-recurring condition and a long interval has elapsed, pregnancy is clearly inadvisable. The epileptic, alcoholic, and mentally deficient are bad strains from which to breed, but the very types that pay no heed to any advice on control. The most difficult cases are those of the neurasthenic woman, whom her distracted husband describes as "never the same since her baby was born." For these women who fatigue easily and suffer from many pains and aches and abnormal sensations, chiefly of pelvic floor weakness with little evidence of genital prolapse, a long interval should be allowed before the next pregnancy, but often the responsibilities and anxiety of an only child prove a factor in prolonging the neurasthenic state, and, with the arrival of the other child, the worry appears to be halved. Hence in such cases the practitioner should summon up courage to advise a hair of the dog that bit her as the cure. Elsewhere (*Practitioner's Encyclopædia of Midwifery and Diseases of Women*, 1921, page 312) I have warned against the ill-effects that may follow advice against further pregnancies being given on inadequate grounds; it is one thing to leave the decision to the parent's

wishes and another to put the limitation on medical grounds; even occasional instances of the disappointed mother, who has lost her only child, with her years of fertility behind her ought to make for caution in giving advice against child-bearing unless for reasons of real danger to the mother's health or life.

When a couple at the beginning of their married life seek advice on birth control, the danger that their only fertile years may be lost should be pointed out to them and the older they are the greater the emphasis to be laid on this point. Fertility in women falls rapidly after the age of 30, and, though there is no evidence to support the view urged by many that the practice of birth-control lessens fertility, the increasing age of the woman certainly does, so that till a couple know that their union will be fertile, they are taking a great risk of making their future life a long regret by adopting measures which may never have been necessary, or still worse, may have prevented conception for the few years in which it was possible.

This Special Number of THE PRACTITIONER to consider birth control from its purely medical aspect concerns but a fraction of those who practise it. It is not on the grounds discussed here that the question of how many and at what intervals babies should arrive is decided; the class that commands the most servants, and has the least need to restrict the size of its family is the class which has the smallest families, not in these days alone, but in all times, not in this country, but in all countries, and the matter will be decided, not on medical or hygienic grounds, but on other motives which need not be mentioned. But it is as well to have in a medical discussion some basic principles for a scientific as well as a social and economic birth control.

The Problem of Birth Control.

By BECKWITH WHITEHOUSE, M.S., F.R.C.S.

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A FEW days after receiving an invitation to express my views upon the subject of birth control for this Special Number of THE PRACTITIONER, I happened to be looking through the pages of a popular periodical devoted to the interests of dog fanciers, and noticed in a prominent position of the advertisement column a series of small announcements whereby books on birth control were advertized in the same type and style side by side with books on whelping and puppy rearing, including "valuable recipes"!

I could not help thinking that the nation had progressed, or shall I say "wandered," a long way since pre-war days, and wondered whether this so-called "sex education" of the masses is to the ultimate good of the community after all, as some would have us believe. Furthermore, where is it going to end?

One fact is abundantly evident, as shown by the character of the advertisement mentioned, and that is that so-called eugenic ideals are to-day being prostituted to the lowest type of commercialism. Is it not strange that only a few years after the termination of a great war, when the flower of the nation's manhood is depleted, we find pamphlets and books on sexual problems and birth control being displayed on every

bookstall?

I feel most strongly that this "broadcasting" of birth control doctrines amongst the educated and reading public is a weapon capable of doing infinite harm, and from which the nation must in the end undoubtedly suffer. The reason for this is that control will be practised to-day, only by those whose duty and privilege it is to form the backbone of our society. The derelicts, for whom reform in sexual matters may possibly be indicated, have neither the money to buy the effusions of the propagandists, nor the ability to read and understand, nor the wish to practise the advice given.

For many years Malthusian practices have been rife on the Continent, and anyone could purchase on the Parisian boulevards illustrated brochures setting forth the very doctrines that are being inculcated to-day amongst British families. Has this been to the advantage of the French? The birth-rate in France has certainly been slowly falling, until to-day it has reached a stage at which reaction has set in and Government premiums are offered for large families. Can it be shown that with this falling birth-rate there has also been a coincident fall in the incidence of insanity, venereal disease, tuberculosis, and so forth, and a general improvement in the nation's physique?

Most members of the medical profession are agreed that the propagation of the physically unfit is detrimental alike to the unfortunate individuals themselves and to the nation as a whole. The arguments in favour of some measure of birth control in such specific instances are well known and convincing. Whether the right means to attain this end is by general diffusion of so-called "sex knowledge" and the promulgation of birth control methods to every boy and girl who has half-a-crown to spend at a bookstall, I very much doubt. I take the view that the

proper channel by which such information should be given *when required* is the medical profession. Further, it is possible that the prestige of the profession may be seriously jeopardized if not now, a few years hence, if a more rigid censorship is not placed upon the diffusion of birth control doctrines by authors who hold no medical qualifications whatsoever, but who apparently have the approval and appear to be working under the ægis of the medical profession.

Most gynæcologists and the majority of family practitioners are aware that birth control has been practised for many years amongst certain of the leisured classes in this country. The loss of an only child during the war brought the lesson home to more than one mother, who in pre-war days preferred her "bridge" or "golf" to the responsibilities of maternity. It is all very well for an arbitrary standard of two or three children per family to be set up by idealists. Each man and each woman is a law unto him or herself, and once the seed of "Malthusianism" has been widely sown throughout the land, it will be as difficult to check its progress, as it is to eradicate poppies from the fields of Flanders.

The whole problem, as it appears to me, is centred upon two main pivots of argument.

(1) Will birth control in a general sense lead to an improvement in the social life of the nation?

(2) Will birth restriction lead to an improvement in the general physique, by eliminating hereditary disease and the physically unfit?

(1) *Will birth control, in a general sense, lead to an improvement in the social life of the nation?*—As regards the first point, I am of opinion that birth control is attacking an economic problem by the wrong route. The practitioner who works amongst the colliery districts of South Wales and elsewhere,

or the slum areas of our great cities, and is cognizant with the appalling conditions which prevail to-day in the housing of the labouring classes, will probably vote whole-heartedly in favour of control of the birth-rate. The problem, if analysed, however, is not one which should affect the birth-rate, but rather the conditions under which the poor live. The large family is the happiest family, and the most populous nation is, and ever will be, the foremost nation. Let our propagandists devote as much work and energy to improving the local conditions of housing and national industry, and we shall neither require nor have the time for such short-circuiting paths as controlling the nation's man-power. The present should be the opportunity for extension and development; for emigration and consolidation, rather than for the adoption of temporary expedients, which may in the long run undermine the nation's very foundations.

Birth control seems to me to be a "second best," and a very poor "second best" at that, of the means available for dealing with the congestion of great cities. Britain was not built upon the "two or three child" standard, and the Empire can for many years find a home for all its sons and for those to come if its resources are properly exploited.

(2) *Will birth restriction lead to an improvement in the general physique, by eliminating hereditary disease and the physically unfit?*—As regards the influence of birth control in eliminating the physically unfit, there can be little doubt that could it be enforced, good must result. The propagation of poor stock and the dissemination of hereditary disease and hereditary tendencies to disease is an occurrence which it is the duty of the medical profession to prevent, not only from the communal but from the individual standpoint. Unfortunately voluntary birth control will never effect this, owing to the very "human" element. Social

evolution in this country has not, so far, reached, and probably never will, that stage when Mendelian principles can be applied to the human species.

Furthermore, controlling the birth-rate by such measures as compulsory eugenical sterilization of the unfit, and marriage by State health-certificate, measures which directly interfere with the liberty of the individual, will never be tolerated in this country. The literature dealing with the records of legislation in other countries directed towards compulsory sterilization is instructive in demonstrating the utter failure of such measures.

On the other hand, eugenic sterilization *uncontrolled by law*, as has been practised in Switzerland for many years, is another matter, and may in the future receive recognition in this country. The problem will probably be forced upon the medical profession owing to the impossibility of preventing marriage between the physically unfit, and as an alternative to the general dissemination amongst the public of birth control methods.

There is a wide distinction to be drawn between the principles of birth control promulgated throughout a nation, and birth control limited to certain individuals. The former practice may on the surface appear to be a solution for certain modern social defects, but, in my opinion, in the end it must recoil with disastrous effect upon the nation which practises it. To mention but one aspect of the problem, illegitimacy may be reduced but immorality in all probability will be more widespread. It is all very well to preach a gospel of continency. This has been preached throughout the ages, and it is only right that this should be so. The medical profession knows only too well, however, the difficulties presented when attempts are made to curtail purely physiological functions. One of the strongest deterrents

to immoral relations to certain individuals to-day is the possible results which such practices may entail.

"Broadcast" measures which apparently provide a loophole of safety, and such deterrents will be lost. This may be unpleasant reading, and it may be said that these arguments are directed at the "abuse" rather than the "use" of birth control methods. Let it be remembered, however, that "abuse" co-exists always with "use," and above all let us not forget the "human" element in dealing with the problem. It is so easy in these days of manias for social reform to limit the perspective to the present without safeguarding the future.

Birth control, in my opinion, is a problem which should be left in the hands of the medical profession, and should be practised under certain conditions only, and with certain definite indications which I have attempted in the space of this short paper to indicate. The principles should not be inculcated far and wide, and above all should not be controlled by the caprices of current lay opinion.

Birth Control—Medical and Sociological Aspects.

By W. E. FOTHERGILL, M.A., B.Sc., M.D.
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MOST medical men meet with cases in which the occurrence of pregnancy is fraught with considerable risk to the mother. Loss of reason, loss of sight, permanent invalidism, dangerous illness and loss of life itself are among the results that may be anticipated under certain circumstances, well known and easily recognized. There are husbands who are not fit to be fathers. In some cases, the parents have been afflicted by venereal disease, and do not show sufficient evidence of cure to justify the hope of sound children. Again, we see women worn out by pregnancies that have followed one another in unduly rapid succession.

No doubt a possible line of action is to let things take their course in cases in which pregnancy is only a misfortune; and to procure abortion at an early stage in cases when the continuance of pregnancy is thought to threaten real disaster. But the artificial termination of gestation involves considerable risk, trouble, suffering and expense, and it should not be lightly undertaken. Prevention, in this matter, is better than cure.

It must be realized that complete abstention on the part of married couples may lead to much unhappiness and nervous strain. Indeed, the practical medical adviser will not forbid coitus; for he knows that it is his duty to relieve suffering and prolong

life, without adding to the sum total of his patient's distress. He will therefore suggest measures for the avoidance of pregnancy, either permanently or for a time, without interference with ordinary married life. The disadvantages of contraceptive measures he may have to explain. As to the husband, there is no evidence to show that they can harm him in any way. It is possible, however, that freedom from the dread of progeny may lead him into deleterious excess.

As to future children, it is said that even the temporary use of contraceptives is sometimes followed by sterility. This is no doubt true, for advancing age is the greatest enemy of fecundity, and after pregnancy has been prevented for a long time the parents are less likely to have children simply because they are older. Again, it is said that the temporary use of contraceptives may impair the soundness of children born after the period of artificial sterility is over. There is no evidence whatever in favour of this contention.

As to the wife, no ordinary method of birth control will do her any harm unless it deprives her of the sexual orgasm, which is the normal completion of coitus. It may be said that there are many women who seldom or never experience an orgasm. This may be granted, and it may be allowed that such women will take no harm in any case. The important point is that, in women who do have the normal completion of coitus, birth control by any method that deprives them of it can produce pronounced emotional and mental distress, with functional disturbance of the reproductive and nervous systems. There is ample evidence to show that this is a fertile source of invalidism in women, and it should be a general rule that no means of birth control can be approved which deprives the wife of the normal

consummation of sexual union.

Coitus interruptus is no doubt the most widely used of all contraceptive measures. It is probably the one which most frequently prevents the natural completion of union in the female, and which accordingly does the most harm. Strictly observed, the method is no doubt efficient; but pregnancy often follows the mere access of spermatozoa to the vulvar region.

Next in popularity is the use of rubber condoms by the husband. This, with ordinary care, should be both efficient and harmless. It may be argued that birth-control is a matter for which the wife should be responsible; but the measures which she can use unaided cannot be said to make fertilization impossible, though they may render it improbable. There are many chemical agents which, while destructive of the life of the spermatozoa, have no effect worth consideration on the epithelial lining of the reproductive tract. Thus, pessaries can be made of medicated glycerine jelly which melt at the temperature of the body into a fluid toxic to spermatozoa. These pessaries, if given time for melting in the vagina, should in theory afford a sound contraceptive. Quinine is the substance generally employed; but children are born from time to time in spite of its routine use. Probably a pessary constructed to melt into a 1 in 1,000 solution of mercuric perchloride would be much more efficient.

Small sponges enclosed in little silk nets are passed into the vagina to absorb the menstrual flow by women whose occupation renders the more usual method inconvenient. One or more sponges of suitable size, squeezed dry and placed in the vagina before coitus, may be withdrawn subsequently with no loss of time by strings. This is a harmless and fairly effective contraceptive measure.

The so-called cheek-pessary of commerce is a small

ring of rubber with a rounded cap on one side of it which is supposed to fit over the vaginal portion of the cervix. The patient may occasionally succeed in getting the instrument into its destined position, but it generally lies loose in the vagina. It is futile to imagine that a plaything of this kind can prevent the access of fluids to the cervical canal. Indeed, these toys might just as well be worn on the nose as on the cervix. They have been on the market over thirty years, and, if they had been any use at all, they would have secured recognition long ago. Douching the vagina is an equally useless performance, being a good example of locking the door after the horse has been stolen. Instances are often quoted in which these devices have been used without failure; but enquiry often shows that the patients in question are either well stricken in years or have had their tubes blocked by previous inflammatory processes.

We are told that certain patients make it a rule to have a sound passed once a month; and that others even wear old fashioned uterine stem pessaries continuously with contraceptive intent. But no conscientious medical man would countenance either of these measures.

The medical adviser must consider the features of each case; probably, when he thinks pregnancy would involve serious disaster or risk to life, he should recommend the use of condoms. When prevention is desirable rather than essential, he may consider that the sponge or a suitable medicated pessary will meet the case.

So much for the medical or therapeutic use of contraceptives in individual cases. The question of birth control by healthy parents is brought into publicity in times of economic stress by persons who have taken posterity under their wings, so to speak, and who hope to reform mankind by reducing the birth-rate. The

late Mrs. Annie Besant may be remembered in this connection. To English readers the best known discussion of the subject is probably the "Essay on the Principles of Population" by Malthus, on the thesis that the population grows more quickly than the food supply, and thus a time must come when some must starve or all must go short. Malthus lived to see transport by railway and steamboat and production by factory methods; and it is clear that a manufacturing community with good markets and transport will not reach the limit of subsistence for a long time. Thus the ground was shifted, and the question came to be "is it worth while to have a large population if the people must work in factories all day and sleep in slums at night?"

Students of descriptive sociology know that the natural limitation of population by war, accident, and disease has, from the earliest times, been supplemented by artificial checks. Communities, both savage and civilized, have limited their numbers by infanticide and by surgical devices. The customs of the Chinese are notorious. Moses, that great pioneer in public health, narrowly escaped the infanticidal habits of the Egyptians. We read that under Lycurgus, children were not allowed to grow up unless passed for preservation after official inspection.

Compared with the young of other animals, the human infant needs prolonged parental care; thus there grew up the human institution of marriage, framed to secure that the replenishing of the earth shall be done by those only who will undertake to provide proper parental care for their offspring. Marriage, especially in the monogamous form customary throughout Christendom, is a tremendous artificial check on population. For it prevents a considerable percentage of the community from having children. But for marriage, there would no doubt

have to be public nurseries where unwanted infants could be received from the municipal midwife, fed on patent foods, and educated at the expense of the nation.

Another check on population is the high infant mortality which is associated with the conditions of so-called civilization. In the infanticide of other races and times the female children were generally selected for destruction, the males being preserved for military reasons. In the infanticide of modern cities it is the males that suffer most; for, the female sex being physiologically the more resistant of the two, it is the male infant that more often perishes under the stress of civilization. This accounts in some degree for what is known as the "superfluous female." But this check is disappearing. For infant mortality is now being considerably reduced; and thousands of children will grow up in the future that would have perished a few years ago. Again, adults are living longer than they did a few decades ago, the average age of the population having increased of late by several years. Thus, quite apart from the birth-rate, the population of this country is now growing at both ends, so to speak.

This might be urged in support of the view that further limitation is desirable at the present time. But the question is by no means simple. A human community is subject to the laws of organic evolution observed throughout the whole world of living things. The general rule is that the more highly organized a creature is, the less quickly does it breed. The more civilized the country, the lower is its birth-rate. France, for example, a land pre-eminent in every way amongst the nations, is often said to be committing race-suicide. Doubtless, if a race is to endure and prosper it must not only consist of good individuals, but also must have enough of

them.

Tribes that do not breed enough perish for mere want of numbers; but those that multiply too quickly become the prey of other races that have maintained a higher standard of individual efficiency. The eagle is king of the air, but he drives his scanty brood from the nest, and his race is dying out. There are plenty of ducks, but most of them seem to end in the stomachs of other animals. The rooks preserve a better balance. Powerfully, though not elegantly developed on the physical side, they breed freely and provide efficient parental care; while their mental equipment enables them to live in model communities well ordered for defence against their enemies.

But generalities apart, is further lowering of the birth-rate desirable in this country at the present time? That is the question. No doubt, any two men in a bar-parlour would agree that there are far too many people about considering the state of trade. But without considerable knowledge of the future course of events, no one could possibly give a serious answer. Those who are concerned about this matter should remember that the British Public is not so ignorant of birth control as might be supposed. A large percentage of the so-called "masses" are already very careful about reproduction; and, other factors aside, the birth-rate will always tend to vary directly with the economic prosperity of the nation. The idea of checking the fecundity of the less desirable portion of the population is no doubt attractive. But how is it to be managed, and who is to separate the sheep from the goats?

Birth Control.

By ERIC PRITCHARD, M.A., M.D., M.R.C.P.
Medical Director of the Infants Hospital, Westminster; Consulting Physician, Queen's Hospital for Children, etc.

ALTHOUGH as a member of the National Birth-Rate Commission I signed the 1918–1920 Report, and have since attended many of its meetings which have been specially concerned with the question of birth control, I must claim liberty in this article in THE PRACTITIONER to express my own personal views, which in certain respects have changed since I gave my adherence to the above-mentioned document.

It must be assumed that, under existing conditions and under stress of economic pressure, there are a large number of married couples in this country who cannot afford families of unrestricted size, and that without some huge and wholly impractical scheme of maternity endowment it would not be in the national interest to encourage the improvident procreation of children, however great may be their value as cannon fodder.

It has been argued that knowledge of contraceptive methods is at the present time in the wrong hands, and that the class which produces the least desirable children is the very class which is least liable to make use of such knowledge, even if it had the intelligence and energy to acquire it. For my part, I do not believe it is possible or desirable to suppress knowledge of any kind among an intelligent and educated people; ignorance of sex-physiology is not a virtue, virtue lies in the capacity to resist temptation, and in self-sacrifice.

Apart from criminal abortion there are only four

methods of preventing the birth of children where normal and healthy men and women live together as husband and wife, and these are:

(1) by voluntary abstention from marital association;

(2) by "coitus interruptus";

(3) by confining intercourse to the so-called "safe" period; and

(4) by the direct employment of contraceptive methods.

Each of these procedures must be considered from the point of view of efficiency, expediency, and physiological effect on the persons who employ them—male or female — as also on the offspring which may ultimately be born.

As regards the first of these alternatives, it has been gravely suggested, and especially by representatives of various religious denominations, that all contraceptive methods are sinful, and that strict voluntary abstinence is the only rightful means of avoiding the natural result of marital connection between married people, and they maintain that such self-restraint is not only compatible with complete and perfect health, but that it leads to the development of some of the highest attributes of character. I do not suppose that the majority of medical men will regard such a solution of the problem as coming within the range of practical politics, for we have to legislate not for saints and ascetics but for millions of common-place individuals, who are actuated by the passions and instincts which are inherent in mortal flesh, and there is no instinct which is so insistent as that of self-preservation which, in its logical and immortal sense, means self-reproduction.

The conditions under which most married people live are not such as to make such self-control possible or indeed healthy, although there may be a few strong

willed or fanatical people who may find compensations for such self-restraint in the conscious pride of subduing the flesh.

Psychologists who have studied the effects of such unnatural abstention declare that anxiety neuroses of one kind and another are liable to supervene as the result of such suppression of the sexual appetite; and the desire for its expression, thus relegated to the sphere of the unconscious, may give rise to fears which spread themselves far beyond their original limitations. They also trace to these inhibitions certain physical disturbances including tachycardia, gastroptosis and disharmonies in the team-work of the endocrine glands. Whether such views are justified or not, there cannot be much doubt that such interference with the legitimate realization of the marital relationship must blight some of the highest ideals and possibilities of married life, and may lead to actual conjugal unhappiness. "Medical science," says the writer of a book on the subject, "has been slow to discover the physical basis of the fact of which the true lover and the true mystic are conscious, namely, that the two who are perfectly married are after marriage of a higher order of being, that each is no longer a simple unit, but the two are fused and merged into a pair, and this is partly based upon and is correlated with the physical exchange of chemical and ultra-chemical particles."

The exact bio-chemical result of the absorption from the mucous surface of the female of the sperm elements of the male can only be guessed at by deductive reasoning and from the consideration of clinical observations. Common experience, however, teaches us that the health of women—especially anæmic women, appears to improve after marriage, whether as the result of absorption of such activating bio-chemical products or as a consequence of the liberation

of pent up energies.

The case of the man exercising such self-denial is quite different, for it cannot be assumed, in spite of what is suggested in the above quotation, that he absorbs any substance of bio-chemical value in his sexual relationship, or that he suffers any loss by abstinence; on the other hand, we have to consider the possibility of some limitation in the amount of the internal secretion elaborated by the interstitial cells of his own testes which, as is universally admitted, plays an enormous part in stimulating the special metabolic processes which are characteristic of the male. It has been argued that the two specific functions of the male organs of generation—the genetic and the hormonic—are independent, and that the suppression of the one need not involve any inhibition of the other.

For my part, I cannot believe that the two processes can be divorced. If the exfoliation of the sex characteristics, psychological as well as physical, can proceed in the boy and be maintained in the man, in spite of complete sexual restraint, this is probably due to the existence of special automatic and involuntary mechanisms (so called nocturnal pollutions) for giving relief to unsatisfied libido and keeping the glands in functional activity. I incline to the view, however, that the adult male loses something of his maleness if sexual abstinence is long continued, and that in the absence of the normal stimuli, for any long period, the dual functions of the organs suffer from general atrophic changes in the whole gland.

Little can be said in favour of "coitus interruptus" as a method of contraception. It entails great self restraint and effort on the part of the male, and is said, I know not with what truth, to have adverse psychological influences on the man and to give rise

to neuroses of various kinds. This practice certainly gives incomplete sexual satisfaction to the woman and deprives her of such bio-chemical stimulation as the sperm secretion may afford, and further it is credited with leading to marital infelicity.

As regards the restriction of connection to mid inter-menstrual periods, one can definitely say that it affords relative safety only, and that it has little to recommend it from the woman's point of view, for at such times she often suffers from a certain sexual frigidity, and further neither men nor women appreciate leaving the choice of time for the satisfaction of their libido to the arbitrament of a seasonal variation.

The employment of douches is open to the same objections in that it only affords relative protection even when skilfully applied, it also deprives the woman of the bio-chemical value of the male secretion, and it involves premeditation and effort on the part of the woman.

The check-pessary has been declared by experienced gynæcologists to be dangerous and harmful, I know not on what clinical evidence. I have myself known married people to employ this method for many years without apparent detriment to health or alienation of the affections, further it has not interfered with subsequent conception or with the health of children born under such conditions. I can also point to a further possible advantage, namely, the tonic effect of the quinine which is usually the active contraceptive principle of the pessary.

This method does not interfere with absorption of the secretion on the part of the female while the insoluble cocoa-butter can be cleared away by douching at any convenient moment.

The rubber cap advocated by some people has undoubted theoretical advantages, but I have doubts

in my own mind whether the majority of women are able to adjust it properly so as to confer even relative immunity. There is no interference with the normal processes of physiological stimulation nor with the subsequent absorption of the seminal fluid such as is associated with the use of the rubber sheath.

Since neither moral nor religious considerations are in the least degree likely to influence the majority of married people against the use of contraceptive methods, when such are desired for motives of expediency, and since medical men and women are constantly consulted by their patients about which methods are the least free from objection, I think it would be of service to the community if those of them, who have practical experience on such matters, would give others the benefit of their knowledge.

As my own interests in this complex problem are chiefly concerned with the fate of the children who are born to married people who practise various means of contraception, I am quite prepared to give my opinion openly that I believe that some of the best children are born under conditions in which a wise and prudent choice has been made of the time of conception by the deliberate limitation of the family, and that the best means of securing this end is the use of the check-pessary with subsequent douching.

Birth Control and Economy.

By HENRY CORBY, B.A., M.D., M.Ch.

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BIRTH control can be looked at from many points of view. I propose dealing with the subject only in reference to cases in which husband and wife have recourse to methods for limiting the number of children through motives of economy.

The first question we have to ask ourselves is, are any or all of these contracepts inimical to the health of the husband or the wife or of both? And I must say I am convinced they are dangerous to the health of both. Take the case of the wife first. It is well known that during the sexual orgasm, there is physiological congestion of the pelvic organs, and it is also known that, when the semen is deposited on the cervix, it has the property of dispersing that congestion, but when it is not deposited there habitually there is every danger that the physiological will become pathological congestion, leading to various inflammations of the uterus, which, in turn, will result in pain and general invalidism for the woman.

But, it may be asked, will chemicals placed in the vagina produce similar effects? And my opinion is that decidedly they will, for not alone do the chemicals kill the spermatozoa, but they destroy the whole of the serum, thus preventing it from exercising its beneficent anticongestive functions.

One case I had recently in my study emphasized in

a special manner these facts. She had uterine trouble, the exact nature of which I forget for the moment, but her chief symptom was excessive metrorrhagia. I prescribed the usual remedies, and was surprised to find that, on the occasions of her future visits, there was but little improvement. On questioning her I learned that her husband was having recourse to *coitus interruptus*. I warned her that unless that were given up I could hold out no hope of doing her real good. She promised my advice would be taken, and at her very next visit she was able to tell me there was an improvement, and that improvement went on steadily and persistently.

Now let us see what are the evil results for the husband. As his semen has anticongestive properties to the advantage of the woman, it is natural to assume that some of her secretions tend to allay the physiological congestion of the penis and testicles occurring during coitus, and if these secretions are not allowed to play their part, pathological congestion of the testicles results. That brings us to the functions of the testicles. They are two, the procreative and the anticongestive, but there is a third which I will describe in this way. When I was a student, the great danger to health often resulting in insanity when both testicles were removed, was said to have a psychic origin owing to the patient brooding over his being unsexed; but it is now well established that the testicles secrete a substance which is absolutely essential to the well-being of the man. If, then, the testicles are pathogically congested the potency of these three functions must be diminished. When condoms are used the health of both husband and wife is endangered, for then the sexual act is mere masturbation, nothing more nothing less, and we must now consider what are the dangers to health resulting from masturbation.

Curiously enough many of the modern books make

little reference, if any, to this very important subject, so I must be content with quoting from some of the earlier authorities. In *A Dictionary of Medicine by various Writers* edited by Richard Quain, M.D., F.R.S., under the heading "Effects and Symptoms" I find the first sentence dealing with this subject runs thus:—"There is no doubt that the excitement incident to the habitual and frequent indulgence in the unnatural practice of masturbation leads to the most serious constitutional effects." Here are further extracts:—"The mental faculties become more or less affected and often great despondency, loss of memory, irritability, prostration of strength, headache, and neuralgic pains ensue. Chronic hypochondriacal invalidism, if not worse, is set up. The effects on the male genital organs themselves are marked. In extreme cases there is impotence. In the female the natural feelings are often lost."

With regard to the above reference to the genital organs it occurs to me that the smallness of the testicles might interfere more or less with the three testicular functions being adequately discharged. Frühwald Westcott in his book on *Diseases of Children*, writing on masturbation, says:—"In many children arrest or even loss of the mental faculties, lassitude or irritability are observed."

I may sum up this branch of the subject by saying that, as the result of my medical experience and my reading of medical literature, I am thoroughly convinced that the use of contraceptives of any kind is distinctly dangerous to health. Medical men, if consulted by patients on this subject, should make known to them the consequences that may result and the risks they run by using these expedients.

Let us now see what effects will be produced on the offspring when the family is limited to one or two children. I have pointed out that coitus with the

use of contracepts is just a form of masturbation, and I have indicated the many-sided injuries to health resulting from that practice. It will be seen from the enumeration of these consequent maladies that it is the nervous system which is mainly hit, and it must follow that nervous ailments transmitted from both parents will react on the children. And is a race of nervous degenerates best calculated to build up the industries or defend the rights of the land of their birth? I do not think so. Again, the life of a single child must be a misery compared to that of the child that has brothers and sisters to romp and play with. The single child is thrown in the company of grown-ups, who in a sense have nothing in common with him, and he loses much of the joyousness and happiness of child-life. He is unduly petted by his parents, and has his every whim gratified. In a word, his up-bringing is of a kind the least suited to train his mind and to fit him to overcome the obstacles he is sure to meet, no matter what his social position, when he grows up to manhood.

On the other hand, the child that has brothers and sisters is rebuked for childish faults. If though a boy he plays with dolls, this tendency to effeminacy is promptly pointed out by his sisters. If a girl exhibits a want of love for dress and joins boys in games of marbles or tops she is at once told by her brothers that she is a "tom-boy," and this moulding of character makes these brothers and sisters more fully equipped to bear with "the slings and arrows of outrageous fortune."

If the nation wants the grit and the genius that go to make the brilliant literary man, the great scientist, or the capable and brave general, surely we will not look for them in the homes of the pampered and enervated one or two. If the use of contracepts deprives the wee little ones of the bright cheerfulness

of life, which should be theirs, the parents often suffer quite as much. I knew a gentleman who had such a substantial banking account that he could easily have brought up even an unusually large family with all the ordinary comforts of life, but possibly necessitating as years went on the cutting off of some of his smokes and drinks, but apparently dreading that some unwonted cataclysm might occur in his affairs he decided on having only one child. That child was a girl, and year after year she more and more entwined herself around the hearts of both her father and her mother. At the age of ten she—died. The grief of her parents was so overwhelming that all their friends noticed they had distinctly aged.

Here is a hypothetical case, and I am sure many of my medical confrères have seen prototypes in their own practice. There are two children: one dies, aged seven the other at fifteen; the condoms are thrown aside but owing to metritis or endometritis one or two abortions still further run down the wife's already enfeebled health; she is forty years old and, as might be expected, she never again has a live child. A "wise woman" friend in the midst of condolences tells her all her troubles, all her miseries are due to her husband having used contraceptes. The wife, irritable as the result of ill-health, is now enraged with her husband because she assumes he did know or ought to have known that the contraceptes he used to procure his own selfish enjoyment, were very likely to produce the many troubles from which she now suffers, and in that home where mutual forbearance and love previously reigned there are now substituted constant bickerings and squabblings, and there is an utter absence of happiness. I know some will ask what is to happen if contraceptes are to be abolished? What about the natural sexual instinct? Is the world to be flooded with a superabundance of human beings,

though there is not enough of food to go round for those already in existence? Is there not enough of poverty and unhappiness without still further increasing it?

I will answer the only birth control I know of which will not endanger health is abstinence from coitus till the seventeenth day after menstruation has ceased. This would permit of coitus taking place during about eight days during each lunar month, and if any man really loves his wife he ought to be prepared to exercise that amount of self-control rather than risk the undoubted dangers to her health and his own as the result of using contracepts. This abstention method is successful in quite a number of cases. I recommended it to a lady who had already five or six children and who was anxious to have no more. For quite a long time it was so successful she thought she would venture having coitus the sixteenth day, and promptly became pregnant.

Some years ago, when having a holiday on the Continent, I met an English professional gentleman and, in conversation, he expressed his opinion that every unmarried man must either fornicate or masturbate, an opinion which I believe is shared by not a few others. With this subject I will deal later on. Meantime, an incident that occurred in connection with that conversation is worth narrating. A few days later I got on to another town, and on searching round the sitting-room of the hotel for some English literature the only thing I could find was a religious magazine, and I must say I was amazed and amused on reading in it an announcement from my recent acquaintance which ran as follows :—" Mr. —— is about making a tour on the Continent and requests prayers." Was his statement with regard to incontinence correct or nearly so? I say no. I have known crowds of men who never married and, I have every reason to believe,

never had coitus. That is my social experience and here is my medical experience. In Cork there is very little venereal disease of any kind, and in country districts it is practically *nil*. After asking husbands whether they ever had venereal disease, and after explaining to them that it is necessary for me to know in the interests of their wives, it is only in very few cases I can trace a history of the disease. Indeed, quite a number of those I have questioned added that they never had intercourse with a woman till they got married.

We will now consider the politico-economic aspects of the birth control question. In my opinion, most of the husbands who use contraceptes do so through selfish and cowardly motives, they fear they will have to give up a few of their luxuries, but they entirely forget the luxury of having healthy children romping round thoroughly enjoying life and brightening the home. The successful merchant is willing to take large commercial risks, but with regard to the size of the family he will take none. He is a brave man in the office but a coward in the home.

Here is something for men of that calibre to ponder over.

Out of the vast army of men engaged in trade and commerce, only a very small proportionate number become bankrupt, and, more remarkable still, very few of the poorest of the poor become habitués of the workhouse. Any man possessed of ability and energy, if he at all gets a fair start, is bound to secure success. If we had more men with more pluck, the cost of condoms would rapidly go down.

Here are some sentences from Herman and Marshal's book on *Diseases of Women* well worth quoting:—"The joy of maternity is the crown of a woman's life. Childless marriages afford a larger proportion of unhappy marriages than fertile ones. A young couple

who successfully prevent pregnancy are laying up for themselves a miserable old age. A couple who have one child and then prevent the arrival of any more, inflict on that child a grievous wrong. The companionship during childhood of brothers and sisters is worth far more than money left when the legatee is not in need of it." The contraccpt magnate merchant gives little heed to these pithy aphorisms. Absorbed in large commercial transactions in inanimate things —wool, wine, or butter,—when he comes to the big problems of life, in the most unbusinesslike fashion he only thinks of the happiness of to-day, and gives no thought to what may be the results in the future.

That brings us to the question of what is happiness, and that is the kernel round which all discussions about birth control must revolve. I would arbitrarily divide happiness into bodily happiness and mental happiness. The poor certainly are not well-equipped in bodily happiness, and undoubtedly deserve our practical sympathy. But I am a great believer in the doctrine of compensations. The clubman loses heavily at poker to-day, but soon afterwards gets a wire to say his horse was an easy winner, and so it is through life; and taking the rich and the poor, each as a separate whole, I should say the poor are as happy as the rich.

When I was physician to the Cork Maternity my duties brought me into the most wretched hovels in the purlieus and lanes of the city, and I saw poverty in its direst and most dismal forms. In the midst of the most comfortless surroundings I often found material for philosophical musings. A present of baby clothes came from a neighbour who was nearly as poor as the recipient. The gift was given because there were no clothes in the house to clothe the babe when it arrived in this cold world. Other neighbours

eame in, and laughed and joked to make the poor suffering patient forget, as far as possible, her miseries. I saw in these eheerless homes healthy, ehubby ehildren, and what promotes happiness more than health. I reeall that Routh, in his book on *Infant Feeding*, states that Irish ehildren are the healthiest in Europe. May not that be largely due to eontraeepts being unknown to the Irish poor?

I have more than onee stood on a railway platform when a train arrived, and, espeeially if it were an exeursion train, noted the differenee between the first and seeond elass passengers. Look into a first elass, and you see ladies and gentlemen with demure faees seanning the morning paper or reading in a magazine a story dealing with the unrealities of life. Farther down you hear boisterous mirth and laughter, and you may feel quite eertain that it is in a third elass earriage all that frolie and fun are so abundant. I have under observation a bright-eyed little beggar-boy of about twelve. No matter how wet or eold the day may be, he is most seantily elad and is always barefooted. I have often heard him sing for his own amusement and more than onee saw him playing a mouth-organ and waltzing round, graeefully and gaily, with a companion. I have no doubt that little lad is mentally as happy and in all probability much more happy than the one or two ehildren in the rieh home where the eontraeept is in vogue.

There is no doubt that in these isles the population is in exeess, and the question eomes how is that exeess to be dealt with. The ideal way would be to provide employment for all; but whether that ean be done and, if so, how it ean be done are problems for the statesman and the eommereial man rather than for me. Failing that I will be told the choiee rests between the use of contraeepts and having reeourse to emigration. The use of eontraeepts eould

do little to promote the idea in view, for it would take years and years to bring the population down to such a level as would permit of every man being enabled to make a decent livelihood. So we now come to consider emigration, and I am at once reminded of the lines of our Irish poet, Goldsmith :—

> " Ill fares the land to hastening ills a prey
> Where wealth accumulates and men decay."

But we are often compelled to make choice between two evils, and with regard to emigration I think it ought to be carried out as a thoroughly organized Governmental scheme, the intending emigrants receiving such assistance as would enable them to work out their salvation in any country to which they propose going, and not to let it be a matter of chance whether they would sink or swim soon after their arrival.

Some time ago, I read that thousands and thousands of acres of land are still unworked in Australia. Why do not the British and Irish Governments enter into negotiations with the Australian Government for the purchase of large areas of these lands, and advance sufficient capital to men with a knowledge of agriculture, who would become each the owner of his own farm when the capital would have been paid back in easy instalments ? It strikes me similar arrangements could be adopted with regard to the establishment of factories in foreign countries. Surely what Henry Ford has been able to do could be done by Governments. That plan, whilst diminishing the surplus populations, would ultimately cost the Governments very little, for the defaulters would be few, whilst on the other hand the doles at present given to the unemployed never find their way back to the Treasury; it must be remembered these doles have a demoralizing effect by encouraging men not to do an honest day's

work.

Ireland was always a poor country. That was partly due to the English masses knowing little of this country, and partly because they and their statesmen were so absorbed in their own affairs that they gave no heed to ours, with the result that we never had a paternal Government to develop the natural resources of this country, and a great part of our population were compelled to make a selection between emigration and starvation. Naturally, they chose the former. Accordingly, during my lifetime the country has been drained of its life-blood. The bone and sinew of the population, the young men, mentally and physically fit, fled from our shores and left behind them the aged, the decrepit and the feeble. Probably it was pondering on these things inspired Goldsmith's lines. The tide of emigration was mainly directed to the United States of America. There Irish brains and muscle contributed largely to the building up of that great nation. These emigrants continuously sent large sums of money to assist in maintaining fathers, mothers, brothers, and sisters in "the old house at home," and in that way a goodly number of our population were enabled to survive, and to be happy, without the limiting use of the condom. A few days after the above was written I was very glad to see by the public press that the British and Australian Governments have entered into a financial arrangement for encouraging emigration to Victoria very much on the lines I have just advocated.

Now to sum up; contraceptS undoubtedly tend to produce ill-health in both husband and wife, and the resulting nervous irritability tends to banish the harmony and love that should subsist between them. The children that are permitted to come into existence lose all the gaieties and joys of child-life. If the advocates of these self-limiting practices are successful

in making them at all widespread, the land will be cumbered by a weakly, degenerated race of neurasthenics and hypochondriacs, not a small percentage of whom will drift into lunatic asylums where, poor creatures, they will be in the midst of their fellow-masturbators. Nature is a stern goddess, who relentlessly punishes those who set at naught her beneficent ordinances.

Contraceptive Technique: A Consideration of 1,400 Cases.

By NORMAN HAIRE, Ch.M., M.B.

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THE following paper is based on my presidential address to the Contraceptive Section of the International Birth Control Conference, held in London in July, 1922. At that time, my experience was limited to some 200 cases. Since then I have dealt with about 1,200 additional cases, taking very full notes, and keeping a large number of the patients under observation at three-monthly intervals, or even oftener. This additional experience has modified my opinion on some minor points, but has confirmed me as regards the main thesis which I put forward last July—that the Dutch occlusive pessary is by far the most satisfactory contraceptive at present available.

This is not intended as my last word on the subject, and I have no doubt that further experience will lead to further modifications. I gladly accept the opportunity of publishing the paper in this Special Number of The Practitioner as a statement of the conclusions arrived at after a study of some 1,400 cases, because contraception has been neglected in all the medical schools and by most doctors, so that up to the present it has been left in the hands of non-medical persons, who are, by reason of their lack of medical knowledge, obviously quite incompetent to

deal with it. In these circumstances a careful study of 1,400 cases by a gynæcologist may prove useful.

For conception to occur it is necessary that a male element or spermatozoon should meet with a female element or ovum. The union of the male and female elements is the original biological aim of sexual intercourse. In the gradual process of evolution, however, sexual intercourse in man has acquired other values and significances in addition. Man does not now perform the sexual act only when he desires offspring to result. More often civilized man has intercourse with the definite hope that the union will not be fertile.

Before detailing the various methods of preventing conception, the question of sexual abstinence must be considered in its medical aspect. I believe that there are adult persons who are able to abstain from sexual intercourse permanently, or for long periods, without any apparent harm resulting. I believe, however, that long-continued abstention from sexual intercourse produces, in the majority of adults of both sexes, more or less severe psychical symptoms, and often physical symptoms in addition. This applies even to individuals who have had no previous experience of sexual intercourse. In the case of married persons, already habituated to coitus, and living in an intimate relationship with their partners, sharing the same room and perhaps the same bed, prolonged sexual abstinence can usually be attained only by a degree of repression which is, I believe, definitely and demonstrably harmful.

The next point to consider is the so-called "*safe period.*" The temporal relation between ovulation and menstruation is still undetermined. It was formerly thought that these two phenomena were nearly, or quite, coincident, and that, therefore, copulation just before or just after the menstrual period was

likely to prove fertile, while copulation in the middle fortnight of the intermenstrual period was absolutely or comparatively safe. This view is no longer held by competent authorities. We do not know at what time in the menstrual cycle the ripe ovum is set free. We do know that the sperm may live for days or weeks in the female body, and that it can presumably fertilize an ovum many days after it has been emitted by the male. In over 1,400 cases which I have investigated personally I have asked whether any reliance had been placed in the safe period, and in not one single case have I found it permanently successful. Besides, and this is important from the practical point of view, I have found most couples unwilling to abstain from the fundamental relationship underlying marriage during one half of every month, especially since it is that half in which many women experience desire most strongly.

Some people are under the impression that a woman is immune from the possibility of conception while she is still suckling her last child, and with this idea many women try to avoid pregnancy by prolonging the period of suckling up to eighteen months, or even longer. In my experience this has failed to prevent conception in 100 per cent. of cases. I believe that suckling women are less liable to conception than usual, but no real reliance is to be placed on it, and the prolonged lactation is often harmful to both mother and child.

There remain the so-called "artificial" methods of contraception, and it is with these that we are here mainly concerned. Now, at the very outset, it must be realized that perfection has not yet been reached in this field, as in many others. There is no method which is at once harmless and certain, and which does not call for a minimum of intelligence and care on the part of the user. I know of no

appliance which can be expected to be successful in the hands of the imbecile or the intoxicated. But short of absolute perfection, we have one method—the Dutch pessary—which is highly satisfactory, and which should be available for the large majority of people. For the small minority for whom it will never be available, on account of some gross abnormality or their own stupidity or carelessness, another alternative exists. These two matters I shall leave to the end of this article. Let us first treat of the methods of contraception which are in common use, but which I consider for one reason or another imperfect.

Withdrawal or "Coitus Interruptus."—This consists in the removal of the penis from the vagina before the emission of semen. It has the advantages that it costs nothing, requires no apparatus and no previous preparation. But it has many disadvantages. It requires an amount of self-control which many men do not possess. It is uncertain, because if only one drop of semen is emitted in the vagina or even on the external female genitals, pregnancy may result. If a second connection occurs without a previous thorough cleansing of the male genitals, some of the semen from the first emission may be introduced into the vagina at the second coitus and cause pregnancy. In every case that comes to me for contraceptive advice, both in my private practice and at the East Street Welfare Centre, I enquire whether withdrawal has been practised and with what success, and in 73 per cent. of cases I have found it fail. A great practical disadvantage is that it spoils sexual satisfaction for many men and even more women.

But the main objection to withdrawal depends on its evil effects on both man and woman. In the male its habitual practice is frequently followed by an anxiety neurosis which generally clears up when the habit is

discarded and some different method of contraception substituted. Its effect on the woman varies. If she usually gets the orgasm in spite of withdrawal, the only ill-effects are psychic, due to the anxiety lest her husband should not withdraw in time to prevent impregnation. But if, as most often happens, withdrawal prevents her attaining the orgasm, she is left with her pelvic organs congested, unrelieved by the detumescence which normally accompanies the sexual crisis. If this occurs regularly, the woman gradually comes to suffer from a chronic pelvic congestion, which may manifest itself by general pelvic tenderness and dyspareunia, dysmenorrhœa, menorrhagia and even metrorrhagia, metritis, salpingitis and öophoritis. I am convinced that a large proportion of gynæcological troubles are due to the evil effects of *coitus interruptus*, and that a great many gynæcological operations could be avoided if this practice was discovered by the physician and abandoned in time.

Similar results in the woman follow the practice of "*holding back*" or deliberate attempts at prevention of the orgasm. Many women, and, indeed, even many doctors, are under the impression that, in the absence of the female orgasm, fertilization cannot occur, and so many women deliberately try to prevent themselves attaining detumescence in order to avoid conception. This method is not only harmful, but in my experience it has failed in 100 per cent. of cases.

Chemical contraceptives may be used in the form of vaginal suppositories, or as oils, jellies, or ointments, or in watery solution. They all aim at killing the spermatozoa by chemical action, and some aim at entangling the spermatozoa and some at washing away the spermatozoa in addition. But all share at least one imperfection—they can affect the semen only while it is in the vagina. It is believed that at the moment of female orgasm some or all of the semen may be aspi-

rated into the uterus. If this is so, any semen so aspirated into the uterus will be immune from the action of the chemical contraceptives. There is another objection which applies in some degree to all chemical contraceptives. A substance which kills spermatozoa does so in virtue of the fact that it is a protoplasmic poison. It is difficult to find a spermaticidal substance which will not have a deleterious effect on the body-cells as well. Most spermaticides will, at least if used without the greatest care, damage the genital passages or cause some degree of poisoning through absorption. And even if eventually we find some perfect chemical contraceptive, it will be a matter of difficulty to ensure that the average person shall obtain *that*, and not some imperfect or harmful, but commercially more profitable, substitute, from the dealer.

Suppositories are most often seen in the form of the so-called "quinine pessary." This consists of a small mass of cocoa-butter or gelatine, in which is incorporated a certain amount of quinine. One of these is placed in the vagina before intercourse, and is supposed to melt and spread over the vaginal interior ready to kill the spermatozoa when they are shed into the vagina. The quinine pessary has many disadvantages. First, it cannot affect any semen aspirated directly into the uterus. Secondly, a large manufacturer of quinine pessaries has informed me that it is very difficult to ensure the equal mixing of the quinine and the cocoa-butter. In the process of manufacture the quinine tends to sink, so that those pessaries made from the upper part of a batch may contain no quinine at all, while those made from the lowest part may contain so much as to cause irritation of the vaginal mucous membrane or even symptoms of quinine poisoning. Thirdly, some quinine pessaries are made with such a high melting-point that they do not readily dissolve at body-temperature, and one patient assures

me that she has found the remains of a quinine pessary still undissolved when she douched the vagina the morning after inserting it. Fourthly, I have unquestionable evidence that a great many so-called quinine pessaries sold in London are deliberately manufactured without any quinine or other active spermaticide at all, in order to afford an additional profit to the dealers. Fifthly, in a woman with a normal amount of vaginal secretion, the additional moisture of a quinine pessary is an unpleasant feature, though in a woman with deficient secretion the lubrication may be an advantage. Quinine pessaries have failed in 71 per cent. of my cases.

A mixture of oil and quinine is sometimes used. This has all the disadvantages of the quinine pessary except No. 3, and the additional disadvantage of requiring the use of a special syringe for its injection.

Contraceptive jellies are much used in Germany. One preparation, called *Patentex*, was very highly spoken of, and Mr. Porter, of Cambridge, had a specimen analysed with the following result :—

PATENTEX.

Starch	20 grams	} = Glycerine of starch.
Glycerine	130 millilitres	
Distilled water	30 millilitres	
Boric acid	20 per cent.	

A friend of mine ordered some *Patentex* from the manufacturer, but received instead what the latter described as an improvement on it, entitled *Metag*. A specimen of this was analysed, and the analyst reported :

> " Careful search was made for substances with a contraceptive action and other alkaloids, salicylic acid, and metallic salts. None was detected. Starch was absent, and a minute trace only of boric acid was present, together with a little tragacanth. A microscopical examination revealed the presence

> of a very large number of vegetable organisms, including diatoms and algæ, together with a smaller number of animal organisms, small fleas, etc. In my opinion the sample consists solely of a tragacanth mucilage (18 grains of tragacanth to the ounce) prepared with ditch-water and containing a trace of boric acid."

The jelly is contained in a collapsible tube, like an ordinary tooth paste tube. When the cap is removed a long glass nozzle is screwed on, the nozzle is inserted into the vagina, and an inch or two of the jelly squeezed into the vaginal fornix.

It is possible that some form of contraceptive jelly may be found which will kill the spermatozoa without harming the patient. Dr. Davidson has suggested a preparation of 1 per cent. lactic acid in mucilage of tragacanth. This will kill spermatozoa *in vitro*, whether it will do so *in vivo* is still undecided. That it will kill the spermatozoa in any semen aspirated directly into the uterus, I find it difficult to believe. We have here, however, a field for future investigation.

There is a device on the market known as *Baxter's Control Patent Outfit*, or *K.P.O.* This consists of a vaginal speculum with a plunger. The plunger is inserted into the speculum, leaving a small space at the end which is filled with a contraceptive ointment, consisting of quinine in vaseline. The instrument is then inserted into the vagina, the plunger is pushed home, and by manipulation of the instrument, the ointment is supposed to be distributed over the vaginal vault and the *portio vaginalis* of the cervix. I have no experience of this instrument. It is admirably adapted for purposes of female masturbation. Its market price is a guinea. I doubt if the average woman would be able to use it so as to distribute the ointment in the manner intended. Its greasiness, and the danger of faulty dispensing of the ointment, are additional

objections.

Watery solutions of chemical contraceptives are used in two ways. They are used, firstly, as *douches*. Here the chemical action of killing the spermatozoa is supplemented by the mechanical action of the douche in washing away the semen. Douching is often successful if carried out immediately after coitus. But the necessity for getting out of a warm bed, and using a douche, immediately after connection, is not only highly unæsthetic, but, I believe, physiologically harmful, in that it disturbs the natural rest that should follow sexual intercourse. Further, it is not to be expected that a woman will get up out of a warm bed on a cold night to prepare hot water for a douche. In the case of the lower middle classes and the poor, who have insufficient privacy and very imperfect sanitary and heating conveniences, it is out of the question. Frequent douching with spermaticidal solutions often gives rise to vaginal inflammation and discharge. Finally, douching cannot act on any semen which has already entered the uterus.

If douches are used, I recommend :—

(*a*) 1 per cent. solution of lactic acid.
(*b*) Normal saline.
(*c*) Vinegar, 1 dram to the pint.
(*d*) Permanganate of potash, 1 in 4,000.

I have found that lysol and Milton, which are frequently used as douches, often give rise to a discharge. Douching has failed to prevent conception in 74 per cent. of my cases.

Watery solutions are often used, secondly, to soak a *sponge* or a tampon of cotton wool, which is then inserted into the vagina with the object of occluding the external os. We have already considered the possible harmful effects of the chemical. The action of the sponge or tampon remains to be considered. If it is too small it may obviously be pushed into one of

the fornices and fail to cover the os. If it is large enough to ensure that the whole of the vault is protected, its bulk usually causes discomfort and interferes with sexual satisfaction. The physical nature of an animal sponge renders it difficult to keep clean. If this method is to be used at all, an artificial rubber sponge, which can be boiled, or a cotton-wool tampon, which must be used only once, is preferable. Sponges have failed to prevent conception in 75 per cent. of my cases.

There are a number of contraceptive instruments which aim at mechanically preventing the semen from reaching the uterus. The first of these is the *condom*, or *French letter*. This consists of a sheath of rubber or animal gut, which fits on the penis and receives the seminal fluid at emission. These can be obtained in reliable brands at moderate cost, and if tested before use by blowing up with air or filling with water to detect faults, they are fairly safe and harmless. Many persons, however, find that they diminish sexual satisfaction so greatly as to be objectionable. The condom has failed to prevent pregnancy in 54 per cent. of my cases.

Another rubber device is known as the *female sheath*. This consists of a stout rubber sheath, which is pushed into the vagina, and which has a sort of apron to cover the external female genitals. It is lubricated inside and out before use. It is certainly a reliable preventive, but it diminishes sexual pleasure so greatly as to be quite unsuitable in ordinary cases.

Persons suffering from venereal disease should abstain from sexual intercourse. If they will not do so, they should use a condom or a female sheath, or both.

There are a number of different types of *intrauterine pessaries*. The first is known as the "Gold Pin," "Wishbone," "Butterfly," or "Brooch Pin." It is

usually made of gold and silver or gold and platinum. The button remains in the vagina outside the cervix, while the hollow stem occupies the canal of the cervix and the uterine cavity. It must be inserted by a doctor. As it is hollow it can be left in during the menstrual period. It is left in for six or twelve months.

"Gold Pin" Pessary.

It was originally introduced for facilitating impregnation in cases of stenosis of the cervix, and is *not* a preventive of conception. Conception often takes place in spite of it, or perhaps because of it, and if the pessary is not soon removed, abortion follows. The cervix is kept patent by it, and the way is thus left open for the entry of septic organisms from the exterior which may reach the uterus and give rise to pathological conditions. It is not a reliable contraceptive; it often acts as an abortifacient; it has given rise to endo-cervicitis, endometritis, pyometra, salpingitis, peritonitis, and even death. It is a very dangerous instrument.

In Germany a much cheaper pessary, consisting of a glass button, with strands of silkworm gut to form the stem, is used for the same purpose. I consider it is open to the same objections.

There are several slightly differing types of *stud pessary*, made of gold, silver, aluminium, bone, ebonite, or other material. The base of the stud remains in the vagina, and the stem occupies the cervical canal protruding more or less into the uterine cavity. It is claimed that the stud prevents the entry of spermatozoa or other matter from the vagina, but permits the escape of the menstrual fluid.

Stud Pessaries.

In many cases these instruments have given rise to inflammation, discharges, and dysmenorrhœa.

There is a tiny *silver cap* which fits on the cervix like a thimble on the finger. The correct size and shape must be found for each person, it is difficult to introduce properly, and it must be removed and replaced at each menstrual period. As this necessitates a visit to a doctor every month, and as it may cause irritation, I do not advocate this method.

There is a tiny *rubber cap* of the same sort. This has much the same defects.

Then there is the small *check-pessary.** This is a small hemispherical rubber cap with a thickened rim. The diaphragm is intended to cover and fit tightly the vaginal portion of the cervix and is supposed to adhere to it by suction. This device is made in three sizes. In my experience the majority of women find it extremely difficult to apply at all, owing to the distance of the cervix from the vaginal orifice and their ignorance of their own anatomy. Indeed, I know of one medical woman, married and a mother, who, even with her professional knowledge of her own anatomy, is unable to put it in properly in herself. Further, the cervix is often so scarred and deformed by previous pregnancies that it is quite impossible even for a gynæcologist to fit one of these pessaries accurately.

CHECK-PESSARY.

In the few cases in which this type of pessary is applied correctly, and fits accurately, it prevents the escape of any discharge from the cervix, damming back the secretions which are liberated at the female orgasm as well as any unhealthy discharge which may exist.

* Several varieties of this pessary are commonly used in England, one of the best known being the "Pro-Race," which is largely recommended.

In the presence of the latter, absorption may occur with consequent danger to the woman's health. Until some two years ago I used to recommend this pessary, but have now entirely discarded it on account of the disadvantages above mentioned. It has failed in 88 per cent. of the cases I have seen.

The *Mizpah pessary* is a little better. In this type the cap and the ring are separable, but the principle is the same, and the same objections apply, though perhaps in slighter degree. Good results are reported from America with this pessary.

And now, having dealt with the methods of contraception in common use, but which for one reason or another are imperfect, we come to what I consider to be the best contraceptive method available. This is the type of occlusive rubber pessary which has been widely used in Holland for some forty years past, and which I introduced, or perhaps re-introduced, into England about two years ago.

Dutch Mensinga Pessary

The *Dutch Mensinga pessary** is a simple rubber ring enclosing a flat watch spring, and closed by a rubber diaphragm. It is introduced preferably so that the convex surface is towards the cervix and the concave surface towards the vaginal opening. The ring rests anteriorly behind the pubic bone, and posteriorly on the back wall of the vagina, high up. Thus the whole of the vault of the vagina is occluded and the semen denied access to the os. The spring and the muscular walls of the vagina adapt themselves to each other even during the movements of coitus, *with which it in no way interferes.* Once it is in

* This appliance is made for me by Lamberts, 62, Queen's Road, Dalston.

position the patient is not conscious of its presence, and the husband would not know it was there unless he were told. It does not interfere in any way with the normal pleasures of intercourse. It is made in about a dozen sizes, varying from 50 to 90 millimetres in diameter. It is essential that it should be fitted first by a medical practitioner, for if a size too large or too small is used it will not protect adequately. Once the patient knows the right size and has been shown how to place it in position, she can use it with ease and security. It may be inserted during the afternoon before the husband comes home from work, and she can then forget about it. If intercourse occurs during the night, she need not get up and take any precautions, but may go to sleep without fear. The next morning she should douche with soapy water or any other simple solution, remove the pessary, and douche again. This method has been used in Holland for forty years with a very small percentage of failures, due to stupidity or carelessness, and I myself have taught its use in some 300 cases in my private practice without a single failure, and in over 1,000 at the East Street Welfare Centre with only four failures. In the presence of a severe perineal tear it is inapplicable until the tear has been repaired.*

I said at the beginning of this paper that this method was available for the great majority of people, and that for the small minority another alternative existed. The alternative I referred to is *permanent sterilization.* I think that all people who can be determined as definitely unfit for parenthood, *e.g.*, the insane, the epileptic, the hæmophilic, and those suffering from any other disease which would probably be transmitted to, or would seriously damage, the offspring, should cer-

* In such a case I recommend the use of a reliable condom as a temporary measure.

tainly be sterilized. Women suffering from diseases which would be seriously aggravated by pregnancy, should also be sterilized. I believe that the time will come when all but the very lowest intellectual grades will be using birth control, and that then the great majority will say to the small minority, "If you are too stupid or too lazy to use contraceptives in the interest of society, then society compels you to submit to sterilization, so that you may no longer contaminate the race."

I understand that sterilization may be effected by X-rays, but the questions of dosage, duration of effect, and possible damage to offspring propagated after the return of fecundity, have not yet been worked out. At present this method is uncertain.

It is not improbable that graduated hypodermic injections of human semen, which had been subjected to a high temperature to kill the spermatozoa and sterilize the fluid, might produce in the female an anti-body capable of killing spermatozoa, and so render her sterile.

The method which I advocate and which I practise at the request of the patient in suitable cases is *surgical sterilization*. In the male this is effected by removing an inch or two of the vas deferens on each side. An incision is made in the scrotum, or over the external inguinal ring. The spermatic cord is drawn out of the wound, the vas deferens isolated, tied in two places an inch or two apart, and the intervening piece cut out. All vessels and nerves, even the most delicate, should be preserved, for their destruction may lead to damage of the testicle. By this procedure, sterilization of the male can be easily, safely, and effectively carried out without any bad influence on the general health or sexual life. The patient's desire, potency, and pleasure are undiminished. He still has an ejaculation at orgasm, but the ejaculate consists of the secretions

of the prostate and other accessory sexual glands and contains no spermatozoa. Steinach and his followers have claimed that in a very large number of cases this operation is followed by an improvement in the general health, and my own experience corroborates this.

The female is best sterilized by removal of the Fallopian tubes through a mid-line incision. This operation of double salpingectomy has no ill effect on the general health or the sexual life, and the menstrual cycle remains unaffected.

It may appear to some unnecessary to labour the point, but as I know that most people, and even many medical men and women, think one means castration or double ovariotomy when one speaks of sterilization, I wish to emphasize the fact that surgical sterilization need only mean vasectomy or salpingectomy, and that it need in no way unsex the patient.

In many of the States of the American Union this operation is prescribed or permitted by law, and is carried out in State institutions on habitual criminals of certain types, and on incurably insane persons, after a duly thorough examination and consultation by expert authorities. To my knowledge over 4,500 cases have been done in this way with satisfactory results. In this country it is legal if carried out at the patient's request, and in my own practice I have had an epileptic, a person who had formerly been insane, and an incurable alcoholic among the men who spontaneously came to me for sterilization. In the case of women sterilization is much less unusual, and therefore far less repugnant to the average medical practitioner.

One point remains to be touched on. It has been said by some people that in normal sexual intercourse the woman absorbs through the vaginal mucous membrane certain unknown substances from the semen

which are beneficial to her. As evidence in support of this, one prominent non-medical writer on the subject announces that she found that if iodine was placed in the vagina traces of it could be discovered in the saliva soon afterwards. This is no proof whatever. Iodine is a protoplasmic poison, and may act on the vaginal cells in such a way as to overcome their resistance so that it is absorbed. Semen is not a protoplasmic poison. While we do not deny the possibility of such an absorption, we can state quite definitely that at present this theory is purely fanciful and unsupported by any definite evidence.

A suggestion worthy of deeper consideration has been made by Thompson, who considers that absorption of the semen, in whole or part, may occur through the mucous membrane of the uterus. He points out that it is much more probable that absorption should occur from this epithelium than from the squamous epithelium of the vagina, and he quotes microscopical appearances which, in his opinion, support his hypothesis.

In conclusion, I would stress the need for the study of contraception by the medical profession. Only thus may it be rescued from the hands of quacks and charlatans and non-medical "doctors" who write erotic treatises on birth control conveying misleading information in a highly stimulating form.

Notes on Birth Control.

The Regulation of Conception.

The Chicago Gynæcological Society submitted the following paragraphs for publication being desirous of giving proper publicity to its present stand on the subject of the regulation of conception :—

In accordance with a resolution passed by the Chicago Gynecological Society, the undersigned committee sent to all members of the Society a *questionnaire* dealing with various phases of the general subject of regulation of conception. The replies were analysed and submitted to the Society at its regular business meeting of January 19, and the Society unanimously approved of the following conclusions :—

1. It is against public policy that information as to contraceptives should be given to the general public.
2. Information as to the prevention of conception should be given, wherever indicated, to wives and husbands by physicians either privately or in existing clinics and dispensaries.
3. Special clinics for the dissemination of this information are neither necessary nor desirable, nor should nursing organizations be utilized to give out such instructions.
4. Risk to the mother, based on ill health, whether due directly to existing disease or to the drain of too frequent childbirth under unfavourable home conditions, is the essential indication for instruction in prevention of conception.
5. All mechanical devices used by the wife as well as strong chemical douches are discountenanced.—(*Surgery, Gynecology, and Obstetrics*, April, 1923.)

The Fifth International Neo-Malthusian and Birth Control Conference was held in London in July, 1922. At this the subject was considered under various aspects in a series of meetings, the first being the Individual and Family Aspects of Birth Control, then the Economic and Statistical, the Moral and Religious, the Eugenic, the National and International, and finally the Medical and the technique of contraception. The Medical Section was presided over by Dr. Killick Millard, who gave an address on " Birth Control and the Medical Profession," in which he urged the necessity that medical men and women should seriously study the various medical problems connected with birth control which await solution. Dr. Millard issued, four years ago, a *questionnaire* to a number of medical men and women chiefly practising in provincial towns, in which one question asked was whether the condom and the quinine pessary were injurious to health under ordinary circumstances. The majority of the replies was in the negative The chief trouble

which might be caused was considered to be some degree of vaginal irritation, but nothing comparable to the many and serious results reported by Bergeret in 1908.

Recently, in collaboration with Dr. Binnie Dunlop, another *questionnaire* was addressed to eminent gynæcologists in London and the provinces as well as to some women doctors of standing. The first question asked was whether it was approved of married couples using contraceptives in cases in which it was felt incumbent on them, on health or economic grounds, to limit the size of the family. Rather more than half the replies received were in the affirmative.

The second question asked which method, or methods, was thought to be the most satisfactory. The condom was recommended in about one-third of the sixty-five replies, but none of the other methods mentioned was supported to any extent.

The third question was whether the reduced birth-rate, now so noticeable in most civilized countries, is not really due to voluntary restriction by means of contraceptives, but is to be attributed to a reduction in natural fertility. More than half the replies were in the negative, but a fair number were in agreement, although adducing no evidence beyond the belief that fertility decreased in intellectual classes.

The fourth question asked whether the use of contraceptives, such as the quinine pessary, which failed to prevent conception, had any injurious effect upon the resulting child. The very large, almost unanimous, majority of the answers was in the negative.

Dr. Norman Haire dealt with "Sterilization of the Unfit" in a paper in which he urged that it is not only justifiable but very desirable to limit or prevent the multiplication of those who, either through physical or mental disease, are obviously unfit for parenthood. In many of the States in America, the compulsory sterilization of lunaties and certain habitual criminals is prescribed or permitted by law. In Indiana, about 1,200 males have been compulsorily sterilized. By sterilization is implied not the removal of the testes or ovaries, but simply vasectomy or salpingectomy, which will in no way unsex the patient.

Dr. Donald Hooker, of Baltimore, reported on "the Effect of the X-ray upon Reproduction in the Rat," but emphasized the fact that, although he had been working for two years on the problem, he was making what was strictly a preliminary statement. Radiation will cause sterility, but the danger, duration, and by-effects of such treatment are not known. From his experiments on rats, he found the X-ray sterilization in the male does not lead to the bodily overgrowth characteristic of castration, and does not inhibit the expression of normal sex-activity.

Dr. Anton Nyström, of Stockholm, discussed "the Necessity of abolishing Laws against Preventive Measures," in a paper in which he showed that in Sweden, Germany, and the United States, in which countries the manufacture and sale of preventives, as well as discussion about them through writing or speech, is forbidden, deliberate abortion has become very common. He urges that the authorities of every country should take steps to establish

institutions and birth control clinics for instructing the public in the humanitarian creation of offspring and for the distribution of reliable preventive means, the manufacture of which should be under State supervision.

Dr. Hermann Rohleder, of Leipzig, gave an address on "Birth Control and Medical Practice," in which he claimed that birth control is a branch of hygiene, and consequently that doctors should be the leading authorities on the subject. Women with heart disease are seriously endangered by pregnancy, and in their case prevention of conception is more justifiable than abortion, which in some cases becomes necessary. Serious disease of the lungs, especially advanced tuberculosis, demands the recommendation of birth control. It is still a moot point whether tuberculous girls should become pregnant. To allow them to waste away through pregnancy is inhuman, and to recommend sexual abstinence is unpardonable, for it will not be observed.

Pregnancy has an unfavourable influence on diabetes, in which a high percentage of sugar is passed. Married women who are found to be diabetic should be made aware of the fact that pregnancy may make their mild cases serious. Diabetic girls may marry, but should have no children.

An indication for birth control is a high degree of contracted pelvis, unless the woman is willing to undergo Cæsarian section; even in that case she must not be allowed to submit to the operation repeatedly.

Chronic disease of the kidneys in women calls for similar advice, and on the same grounds, to that given in heart disease.

The presence of venereal disease makes the use of the condom obligatory; abstinence is best, but the disease may not be cured quickly.

Hæmophilia has a strong inheritability, and, as Ripke says, "Bleeders ought not to reproduce." Serious nervous diseases, epilepsy, hysteria, and mental diseases call for the consideration of birth control or of sterilization, and the same applies to chronic alcoholism and morphinism.

Dr. Frances Huxley read a paper on "Birth Control from the Point of View of a Woman Gynæcologist," in which she pointed out that whatever view may be taken with regard to the desirability of birth control, it is well to realize that it no longer is a question of whether it is allowable, for it is more and more in actual practice. She considers that it is the right of every married couple to know, if they wish, how best to regulate their family.

From the medical point of view, it is desirable to space the members of a family so that the mother may have full time to recover, and maintain for a time her normal health before conceiving again.

Birth control is needed for those who go abroad to unfavourable climates where medical aid is difficult of access. The woman's health is often ruined by a first unfortunate confinement.

Mr. J. E. Pell read a paper on "The Fertility Question," in which he set forth that a falling birth-rate merely is not a controlled birth-rate, and that the present decline is due not to the use of

contraceptives but to a natural law, which can be traced in its action throughout the animal and vegetable kingdoms, and even among unicellular organisms.

All the substantial facts in the report of the National Birth Rate Commission told with decisive force in favour of the view that the decline in the birth-rate is the result of natural causes.

The question must be grappled with in a scientific way, and the issue forced to the front. It is only by concentrating the attention of thousands of experimental biologists and physiologists all over the world upon the problem of overcoming this constantly increasing sterility that we can hope to solve it. It is the accumulated observations of thousands of different workers and observers, which lead to progress. If the result of enquiry proves that there is no natural law at work, it can then be pointed out that there is no alternative to the use of contraceptives. But if it turns out that there is such a law, we are bound to find some means of ensuring fertilization at will before we can control the birth-rate.

The Contraceptive Section held a private afternoon session open to members of the medical profession only. Dr. Norman Haire presided, and read a paper in which he urged that the ignorance of medical practitioners on the subject opened the way for the quack and the charlatan.

The best contraceptive method available, in Dr. Haire's opinion, is the *Mensinga Pessary*, which has been used in Holland for about forty years.

With regard to absorption by the vaginal mucous membrane of certain substances from the semen, Dr. Haire considered this idea to be unsupported by any evidence, but that Professor Thompson's suggestion that absorption of the semen in whole or in part by the uterine mucous membrane was worth further consideration.

Sir Arbuthnot Lane was sure that material was absorbed through the vagina. If a woman has not obtained prostatic reaction in the ordinary way and is given prostatic extract by mouth the same result is obtained, which is evidenced by the changes in her breasts.

Dr. Finucane considered that all methods of birth control are harmful, above all to the woman.

Dr. W. H. B. Stoddart considered that abstinence does no harm in the absence of sexual stimulus, as when husband and wife occupy separate bedrooms, but if they lie in contact with one another there is sexual stimulus, which is not gratified and anxiety neurosis was the consequence. *Coitus interruptus* has the same effect as abstinence. These people experience a desire which they do not wish to feel, and the desire is repressed with the unconscious and replaced in consciousness by its opposite, fear, dread, and anxiety. There are a large number of physical signs of anxiety neurosis—the physical signs arising from secretion of the endocrines. There is an affection of practically every system of the body. There may be attacks of unconsciousness, fits and hallucinations, cardiac attacks and palpitations, difficulty of respiration, attacks of asthma and of air-hunger, disturbance of digestion and constipation, diarrhœa and sickness, or frequency of micturition; some in one and some in another. These cases of anxiety neurosis due to the use of con-

traceptives reeover when treated with prostatie extraet and orehitie extraet in tabloid form by the mouth.

Dr. Killiek Millard suggested that two alternative methods were required, one essentially for the male and one essentially for the female. He pointed out that if Professor Thompson's view is true that the female absorbs something benefieial to her from the semen, that raises an objeetion to the condom, the use of which would deprive her of this.

Dr. Huxley thought that any woman using eontraeeptive methods must have personal help, beeause the anatomieal strueture is so different in different women.

Lord Dawson pointed out the strong psyehieal element in the sex aet, whieh ean only be negleeted at peril. Any elaborate preparation or effort will often suffiee to erush out all sentiment, and some women find the insertion of a pessary some hours before antieipated intereourse distasteful enough to produee this effeet. The use of the sheath involves a measure of saerifiee. The man has to pause before proeeeding to physieal eonsummation. This effort of self eontrol eomes early enough to be feasible, and both man and woman ean, without let or hindranee or anxiety, enter into that eomplete abandonment whieh is essential to the eomplete realization of the sex aet. With *coitus interruptus*, on the other hand, the strain of eontrol at the wrong time is bad physieally and psyehieally. Reeiproeity is impossible under those eonditions, and instead of abandonment only followed by satisfaetion, exhaustion results.

Burton, in his *Anatomy of Melancholy*, written 300 years ago, wrote :—

"Causes of Melancholy.

"Parents a cause by propagation.

"So many several wayes are we plagued and punished for our fathers' defaults; in so much that (as Fernelius truly saith) '*it is the greatest part of our felicity to be well born; and as it were happy for humane kind, if only such parents as are sound of body and mind, should be suffered to marry.*' An husbandman will sow none but the best and choicest seed upon his land; he will not rear a bull or an horse, except he be right shapen in all his parts, or permit him to cover a mare, except he be well assured of his breed; we make choice of the neatest kine and keep the best dogs; 'quanto id diligentius in procerandis liberis observandum?' and how careful then should we be in begetting of our children? In former time, some countreys have been so chary in this behalf, so stern, that if a child were crooked or deformed in body or mind, they made him away; so did the Indians of old (by the relation of Curtius), and many other well-governed commonwealths, according to the discipline of those times. Heretofore, in Scotland (saith Hect. Boëthius), 'if any were visited with the falling sickness, madness, gout, leprosie, or any such dangerous disease, which was likely to be propagated from the father to the son, he was instantly gelded; a woman kept from all company of men: and if by chance, having some such disease, she were found to be with child, she with her brood were buried alive': and this was done for the common good, lest the whole nation should be injured or corrupted. A severe doom, you will say, and not to be used amongst Christians. Yet more to be looked into than it is. For now, by our too much facility in this kind, in giving way for all to marry that will, too much liberty and indulgence in tolerating all sorts, there is a vast confusion of hereditary diseases, no family secure, no man almost free from some grievous infirmity or other. When no choice is had, ... it comes to pass that our generation is corrupt; we have many weak persons, both in body and mind, many feral diseases raging amongst us, crazed families, '*parentes peremptores*'; our fathers bad; and we are like to be worse."

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APPOINTMENTS.

No charge is made for the insertion of these notices: the necessary details should be sent before the 14th of each month to The Editor, THE PRACTITIONER, Howard Street, Strand, London, W.C. 2, to secure inclusion.

BLOOM, H., L.D.S., appointed Hon. Dental Surgeon to the Kensington, Fulham, and Chelsea General Hospital.

BUTCHER, T. B., M.R.C.S., L.R.C.P. Lond., appointed Civil Surgeon, Muttra, U.P., India.

CALLANDER, L. DOUGAL, M.D., appointed Visiting Surgeon to Poor Law Infirmary, Doncaster.

CARLETON, H. H., M.D., B.Ch. Oxf., M.R.C.P. Lond., appointed Honorary Assistant Physician to the Bristol General Hospital.

CHRISTIE, G. W., F.R.C.S. Edin., appointed Certifying Surgeon under the Factory and Workshop Acts for Ulverston.

CLARKE, DONALD, R., M.B., appointed House Surgeon at Royal Alexandra Hospital for Sick Children, Brighton.

CLEGG, S. J., M.D. Manch., D.P.H., appointed Medical Officer of Health for Durban, South Africa.

COHEN, S. M., M.D., B.S. Lond., appointed Certifying Surgeon under the Factory and Workshop Act for Rhondda, Treorchy.

CURTIS, H., F.R.C.S. Eng., appointed Consulting Surgeon, Metropolitan Hospital, London.

DUNSCOMBE, C., B.Ch. Camb., M.R.C.S., L.R.C.P. Lond., D.P.H. Oxf., appointed Resident Medical Officer to the Brighton Isolation Hospital and Sanatorium.

ELLISON, J., M.B., B.Ch. Camb., F.R.C.S. Edin., appointed Out-patient Surgeon at Chelsea Hospital.

FINCH, E., M.D., M.S. Lond., F.R.C.S. Eng., appointed to a Lectureship in Surgery at the University of Sheffield.

GIBSON, J. M., M.D., D.P.H. Belfast, appointed Medical Officer of Health and School Medical Officer for the Urban District of Radcliffe, Lancashire.

GREER, W. N., M.B., Ch.B. Edin., appointed Third Assistant Medical Officer, Leeds Township Infirmary.

HINDS, F. W., M.B., B.Ch. Belfast, appointed House Surgeon, Whitehaven and West Cumberland Infirmary.

MACLEAN, N. A., M.B., Ch.B. Glasg., appointed House Surgeon, Addenbrooke's Hospital, Cambridge.

MORRIS, S. G., M.D., C.M. Edin., appointed Certifying Surgeon under the Factory and Workshop Act for Rhondda, Porth.

PAIN, A., M.R.C.S., L.D.S., appointed Hon. Dental Surgeon to the Kensington, Fulham, and Chelsea General Hospital.

POTTS, T. N. V., M.B., B.S. Durh., D.Hy., D.P.H., appointed Assistant Medical Officer of Health, Newcastle-upon-Tyne.

RADLEY, S. B., M.B. Lond., F.R.C.S. Eng., appointed Honorary Surgeon to the Newark and District Hospital.

ROBERTSON, J., M.B., M.S. Glasg., D.P.H., M.R.C.P. Edin., F.R.I.P.H. Lond., appointed Medical Officer of Health, School Medical Officer, and Medical Superintendent of Infectious Hospital at Darwen.

RYAN, V., M.B., B.Ch.N.U.I., appointed Assistant Resident Medical Officer, Winsley Sanatorium, near Bath.

SAUNDERS, W. E. ROPER, M.R.C.S., L.R.C.P., D.P.H., appointed Medical Superintendent, Mountsorrel Cottage Hospital; Medical Officer of Health, Quorndon Urban District.

SLOANE, J. M., M.B., B.Ch., B.A.O. Belfast, appointed Fourth Assistant Medical Officer, Knowle Mental Hospital, Fareham, Hants.

SMITH, G. F. R., M.B., B.S. Lond., M.D. Liverpool, appointed Lecturer on Dental Anæsthetics in the University of Liverpool.

SOUTER, W. CLARK, M.D. Aberd., D.O. Oxon., appointed Honorary Ophthalmic Surgeon to the Maternity Hospital Aberdeen.

TORRENS, J. A., M.D., B.S. Lond., F.R.C.P. Lond., and SMITH, E. BELLINGHAM, M.D., B.S. Lond., M.R.C.P. Lond., appointed Physicians to St. George's Hospital.

WALKER, E. H., M.B., Ch.B., D.P.H. Manch., appointed Medical Officer of Health and School Medical Officer at Stretford.

WILLOCK, EDITH F., M.B., B.Ch. Dub., B.A.O., D.P.H., appointed Resident Medical Officer, Manchester Babies' Hospital.

WILLS, F. H. P., L.M.S.S.A. Lond., appointed Medical Officer of Health to the Marlow Urban, Wycombe Rural and Hambleden Rural Districts, Bucks, and Assistant School Medical Officer, Marlow Area.

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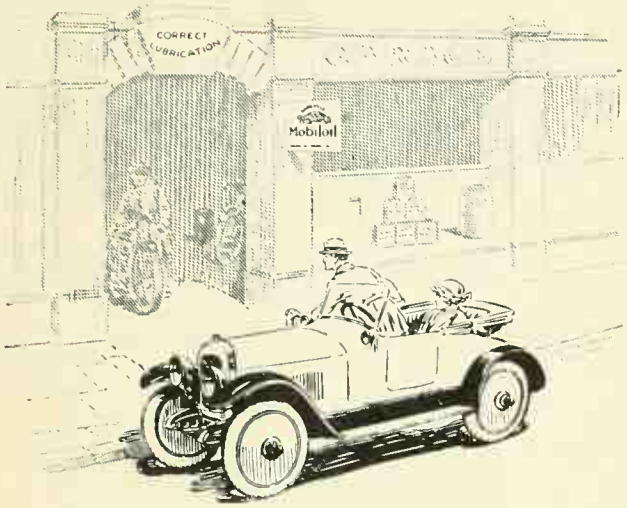

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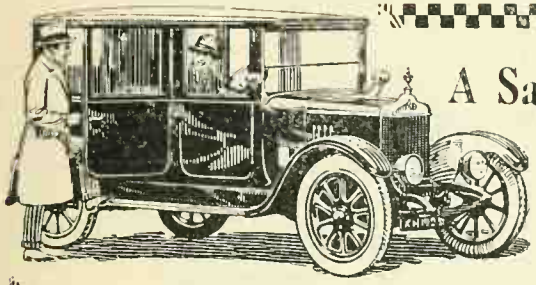

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NOTICES.

THE PRACTITIONER,
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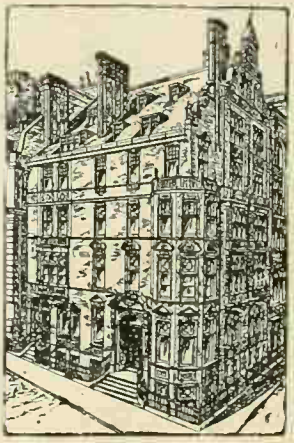
Editorial :—

Communications relating to the Editorial Department must not be addressed to any individual member of the Profession on the staff, but to The Editor, "The Practitioner," Howard Street, Strand, London, W.C.2.

Original articles, clinical lectures, medical society addresses, and interesting "cases" are invited, but are only accepted upon the distinct understanding that they are published exclusively in "The Practitioner." Unaccepted MS. will not be returned unless accompanied by a suitable stamped addressed envelope.



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Letters relating to the Publication, Sale, and Advertisement Departments should always be addressed to the Manager. The annual subscription to "The Practitioner" is Two Guineas, post free; Single Copies 4s.

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